

2017-18 Season Summary, 2018-19 Preview, & Survey Results

### **Our Deer Management Strategy**

The goal of Ohio's deer program is to provide a deer population that maximizes recreational opportunities including viewing, photographing, and hunting, while minimizing conflicts with agriculture, motor travel, and other areas of human endeavor. This has been the ODNR Division of Wildlife's goal for over 50 years. Historically, farmer and rural landowner attitude surveys have been used to establish population goals for most counties. While the ODNR Division of Wildlife believes these goals represent a reasonable compromise concerning appropriate deer population levels, we have updated population goals using a combination of farmer and hunter surveys completed during the fall of 2015. Maintaining the deer population at or near goal is accomplished through harvest management.



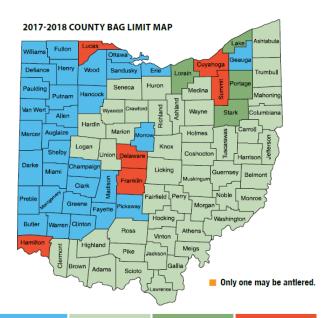
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### **SEASONS AND PERMITS**

A valid hunting license (resident = \$19, nonresident = \$125, youth = \$10, senior = \$10) and a deer permit (either-sex = \$24, antlerless = \$15, youth = \$12, senior = \$12) are required to hunt deer in Ohio. Hunters could harvest up to six deer with a combination of either-sex and antlerless permits (Figure 1); however, they were limited to one antlerless permit per county. Antlerless permits were valid only in 10 urban counties during the first nine weeks of the archery season, as well as during all ODNR Division of Wildlife controlled hunts.

Figure 1. Harvest regulations for the 2017-18 season as presented in the Ohio Hunting and Trapping Regulations, Publication 5085.



TWO DEER	THREE DEER	THREE DEER	FOUR DEER
COUNTY	COUNTY	COUNTY	COUNTY
A hunter may kill	A hunter may kill	A hunter may kill	A hunter may kill
no more than two	no more than three	no more than three	no more than four
deer in a two deer	deer in a three deer	deer in a three deer	deer in a four deer
oounty during the	county during the	county during the	county during the
2017-2018 season.	2017-2018 season.	2017-2018 season.	2017-2018 season.
Up to two either-sex permits.	Up to three either-sex permits.	Up to two either-sex permits and one antlerless permit. - OR -	Up to three either- sex permits and one antlerless permit. - OR -
Antlerless permits are NOT valid.	Antlerless permits are NOT valid.	Up to three either-sex permits.	

As always, hunters were limited to one antlered deer and had the opportunity to hunt deer during Ohio's four seasons, including archery (Sep. 30, 2017 - Feb. 4, 2018), gun (Nov. 27 - Dec. 3, 2017), bonus gun (Dec. 16-17, 2017), and muzzleloader (Jan. 6-9, 2018). Youth (17 and under) season was Nov. 18-19, 2017.

The ODNR Division of Wildlife issued 429,006 deer permits during the 2017-18 license year, 3.6 percent fewer than last year and the eighth consecutive year that sales have declined (Table 1). Permit sales for 2017-18 were down more than 30% from the recent peak in 2009-10. The decreasing trend is likely due to several factors including fewer deer in many areas of the state; the statewide buck harvest of 78,099 was 18% lower than the record 2006-07 buck harvest (Figure 2). Also, as noted, antierless permits were only valid in 10 urban counties in 2017-18 (to encourage herd growth in many areas of the state). As a result, antlerless permit sales were down 88% compared to the 2013-14 season (the last season that antierless permits were valid statewide). Finally, and most notably, the number of deer permits issued is largely dependent upon the number of hunters participating. Since 2011 the number of individuals purchasing at least one deer permit has dropped from 359,000 to 309,000 - a 14% decline in just the last six years (Figure 3).

Figure 2. Statewide buck harvest, 1977-2017.

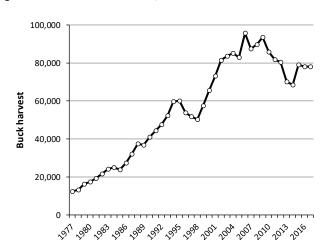
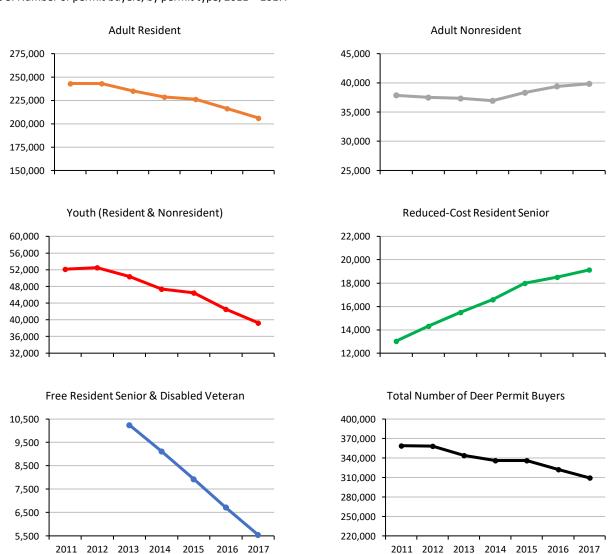


Table 1. Deer Permits Issued, 2007 - 2017.

Veer		Permit		Total
Year	Youth	Either-Sex	Antlerless-only	Total
2007-08	65,647	411,522	101,197	578,366
2008-09	67,338	396,704	147,400	611,442
2009-10	67,828	394,620	162,460	624,908
2010-11	66,300	380,462	162,655	609,417
2011-12	62,864	377,302	163,383	603,549
2012-13	64,634	397,333	126,918*	588,885
2013-14	60,961	373,315	101,400	535,676
2014-15	58,227	378,921	57,230	494,378
2015-16	58,055	392,533	15,514	466,102
2016-17	52,706	373,791	18,669	445,166
2017-18	49,529	367,753	11,724	429,006

<sup>\*</sup>Restrictions on the use of the antlerless permit began in 2012 and were expanded through 2015.

Figure 3. Number of permit buyers, by permit type, 2011 – 2017.



### HARVEST SUMMARY

Hunters harvested 186,247 deer during the 2017-18 season, comparable to the three-year average (Table 2). The total includes 78,099 bucks, 88,954 does, and 19,194 button bucks. Coshocton County once again led the state with 6,559 deer killed. A harvest summary by season for the top five counties is presented in Table 3, and a complete harvest summary by county and season is available in Appendix 1.

The harvest total during the traditional statewide gun season was 72,509 deer, 2% more than the three-year average (Table 2). Coshocton, Tuscarawas, Muskingum, Ashtabula, and Guernsey counties led the state in gun harvest (Table 3). The bonus gun season harvest was 14,043 deer. Coshocton County hunters led the way, harvesting 505 deer during the two-day season, with Tuscarawas (496), Ashtabula (482), Carroll (411), and Knox (381) counties rounding out the top five.

Archers reported harvesting 79,352 deer, about a 3% decline compared to the three-year average (Table 2). Archers accounted for 43% of the entire deer harvest, and for the fifth year in a row, more deer were taken during archery season than the week of gun season. By comparison, just 15 years ago the archery harvest only accounted for about 25% of the annual harvest (Figure 4). This shift in the harvest is likely due to the ever-increasing interest and participation in archery hunting. In 1981, only one of three gun hunters also bowhunted. This year, 70% of gun hunters also hunted the archery season.

Figure 4. Percent of the total annual deer harvest taken during the archery and traditional 7-day gun season, 1977-2017.

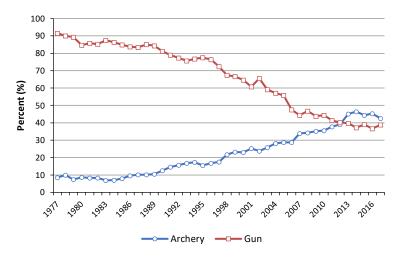


Table 2. Buck, doe, button buck, and total harvests by season, 2017-18 and three-year average1.

Bu	cks <sup>2</sup>	D	oes	But	tons		Total	
2017	3yr avg.	2017	3yr avg.	2017	3yr avg.	2017	3yr avg.	Diff. (%)

Gun											
Traditional (7-day)	27,174	26,659	36,827	35,909	8,508	8,318	72,509	70,886	2.3		
Bonus (2-day)	4,283	3,351	8,004	6,156	1,756	1,398	14,043	10,906	28.8		
Youth	2,622	3,261	1,675	2,041	595	713	4,892	6,015	-18.7		
Total	34,079	33,272	46,506	44,106	10,859	10,430	91,444	87,807	4.1		

Archery									
Crossbow	25,397	25,214	20,721	21,004	4,395	4,491	50,513	50,709	-0.4
Vertical Bow	13,965	15,243	12,769	13,644	2,105	2,258	28,839	31,146	-7.4
Total	39,362	40,458	33,490	34,648	6,500	6,749	79,352	81,855	-3.1

Muzzleloader	3,892	3,978	7,859	8,291	1,540	1,609	13,291	13,879	-4.2
Total	78,099	78,469	88,954	88,076	19,194	19,038	186,247	185,584	0.4

<sup>&</sup>lt;sup>1</sup>Average of 2015-16, 2016-17, and 2017-18 seasons

<sup>&</sup>lt;sup>2</sup>Includes bucks at least 1.5 years old with antlers less than three inches in length (2,396), and bucks with shed antlers (917).

Table 3. Buck, doe, button buck, and total harvest by season for the top five counties, 2017-18.

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Season	County	Bucks*	Does	Buttons	Total	2017	2016
	Coshocton	852	1,421	286	2,559	1	1
	Tuscarawas	828	1,252	251	2,331	2	3
Gun	Muskingum	775	1,266	275	2,316	3	2
	Ashtabula	596	1,149	344	2,089	4	4
	Guernsey	761	1,022	220	2,003	5	6
	Coshocton	117	323	65	505	1	7
	Tuscarawas	142	288	66	496	2	4
Bonus Gun	Ashtabula	120	274	88	482	3	1
	Carroll	113	242	56	411	4	12
	Knox	110	218	53	381	5	24
	Coshocton	835	707	134	1,676	1	2
	Licking	744	627	125	1,496	2	1
Crossbow	Ashtabula	570	651	191	1,412	3	3
	Tuscarawas	718	574	94	1,386	4	5
	Trumbull	538	487	167	1,192	5	4
	Coshocton	531	440	66	1,037	1	2
	Licking	407	392	54	853	2	1
Vertical Bow	Tuscarawas	387	407	52	846	3	5
	Muskingum	433	275	34	742	4	3
	Knox	309	331	63	703	5	4
	Coshocton	146	289	53	488	1	2
	Muskingum	129	286	66	481	2	1
Muzzleloader	Guernsey	115	303	47	465	3	5
	Tuscarawas	95	258	44	397	4	3
	Morgan	124	220	22	366	5	10
	Coshocton	102	87	33	222	1	1
	Tuscarawas	96	57	28	181	2	3
Youth	Muskingum	81	73	9	163	3	4
	Guernsey	76	56	22	154	4	2
	Belmont	80	48	14	142	5	6
	Coshocton	2,605	3,311	643	6,559	1	1
	Tuscarawas	2,300	2,881	541	5,722	2	4
Total	Muskingum	2,203	2,558	513	5,274	3	2
	Ashtabula	1,652	2,650	774	5,076	4	3
*Includes bucks at least 1.	Licking	2,092	2,443	474	5,009	5	5

<sup>\*</sup>Includes bucks at least 1.5 years old with antlers less than three inches in length and bucks with shed antlers.

Crossbow hunters harvested 50,513 deer, nearly equivalent to the three-year average (Table 2).

Coshocton County led the state with 1,676 deer, followed by Licking, Ashtabula, Tuscarawas, and Trumbull counties. This year's vertical bow harvest (compounds, recurves, and longbows) was 28,839 deer, 7% fewer than the three-year average. Coshocton County archers led the state with a harvest of 1,037. After leading the state in vertical bow harvest for 10 consecutive years, Licking County dropped to the 2nd spot, with Tuscarawas, Muskingum, and Knox rounding out the top five vertical bow harvest counties.

There were 13,291 deer harvested during the four-day statewide muzzleloader season, a decline of 4% over the three-year average harvest (Table 2).

Coshocton County was the top spot for muzzleloader hunters with a harvest of 488 deer, followed by Muskingum, Guernsey, Tuscarawas, and Morgan counties.

Youth hunters took 4,892 deer this year during the 2-day youth season, a decrease of 19% compared to the three-year average (Table 2). Top harvest counties for the two-day youth season were Coshocton, Tuscarawas, Muskingum, Guernsey, and Belmont counties.

#### **Nonresident Hunters**

Among permit buyers, nonresident hunters accounted for 12.6% of the deer permits issued, 12% of the harvest (16,191 deer), and 17% of the antlered harvest (9,583 bucks) in the 2017-18 season. Eighteen percent of nonresident harvest (2,874 deer) was taken on public land, which is more than twice the rate of residents (8%). The nonresident harvest was 59% antlered. By comparison, the resident harvest was only

38% antlered. The top five nonresident states (by total harvest) were Pennsylvania (2,883), Michigan (1,624), West Virginia (1,436), North Carolina (1,180), and Florida (1,043). The top five counties for nonresident deer harvest were Athens (22.8%), Adams (21.4%), Morgan (20.3%), Pike (20.0%), and Meigs (19.6%).

A majority of nonresident harvest (58%) occurred during archery season, with the gun and muzzleloader seasons accounting for an additional 28% and 11%, respectively (Table 4). Nonresidents took a larger percentage of their harvest during archery season than either residents or landowners. Two-thirds of the antlered and almost half of the antlerless deer harvested by nonresidents were taken during archery season.

#### Landowners

Landowners reported harvesting 50,476 deer, just over 27% of the total harvest. The proportion of the harvest taken by landowners increased substantially from 1995 (19%) to 2005 (28%), but has remained between 26 and 28% of the total harvest since. Landowners harvested the majority of their deer (45%) during the gun season, 41% during archery, and 7% during the statewide muzzleloader season (Table 4). Landowner proportion of the total county harvest varied considerably across the state, but was greatest among southeastern counties. Washington County led the state with landowners accounting for 40% of the total reported harvest. Landowners also accounted for a significant portion of the total harvest in Meigs (40%), Gallia (37%), Monroe (37%), and Guernsey (37%) counties (Table 5).

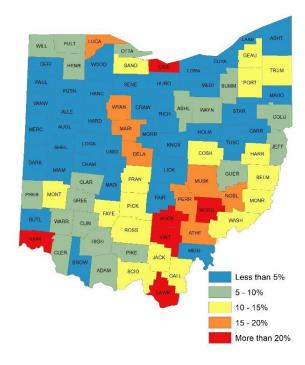
Table 4. Proportion of antlered, antlerless, and total harvest by season, for adult residents, nonresidents, and landowners during the 2017-18 deer season.

	Ar	tlered Har	vest	Ar	ntlerless Har	vest	Total Harvest			
	Resident	Non- resident	Landowner	Resident	Non- resident	Landowner	Resident	Non- resident	Landowner	
Archery	chery 51 66 51		40	47	34	44	58	41		
Gun	38	24	40	42	42 34 48			28	45	
Bonus Gun	<b>Bonus Gun</b> 6 2 5		5	10	5	10	8	3	8	
Muzzleloader	uzzleloader 5 7 4			9	15	8	7	11	7	

Table 5. Top 10 Landowner harvest counties for the 2017-18 deer season.

County	Percent of Total Harvest by Landowners	Percent of Antlered Harvest by Landowners (Rank)	Percent of Antlerless Harvest by Landowners (Rank)
Washington	40	36 (1)	44 (2)
Meigs	40	34 (3)	44 (1)
Gallia	37	36 (2)	39 (5)
Monroe	37	32 (6)	40 (3)
Guernsey	37	34 (4)	39 (4)
Holmes	36	34 (5)	37 (8)
Scioto	35	31 (11)	38 (6)
Athens	34	29 (15)	38 (7)
Perry	34	31 (7)	36 (11)
Jackson	34	30 (12)	37 (9)

Figure 5. Percent of harvest taken on public land during the 2017-18 deer season.



#### **Public Land**

While public land only accounts for roughly 4% of the total land area in the state, resident and nonresident hunters

reported harvesting 16,624 deer, 9% of the season total, on public land. Antlered bucks accounted for 37% of the public land harvest, slightly less than the proportion of antlered bucks in the private land harvest (40%). With just over 80,000 acres of public land including the Wayne National Forest, Crown City Wildlife Area, and Dean State Forest, Lawrence County once again held the top spot for the proportion of harvest taken on public land (33%; Figure 5). The other top counties were Erie (26%; a large portion of the county's public land harvest was undoubtedly a result of the controlled hunting opportunity at NASA Plumbrook), Vinton (22.4%), Hocking (22.2%), and Morgan (21.9%). Nonresident hunters accounted for more than 25% of the public land harvest in seven of the top 10 counties (Table 6).

Table 6. Public land and total harvest, by residency status, in the top 10 counties for public land acreage during the 2017-18 deer season.

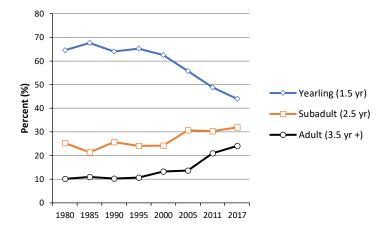
		Public Lan	d	R	esident H	arvest			Nonreside	ent Harvest	
County	Acres*	% of County Area Open to Public Hunting	% of County Harvest Taken on Public Land	Public Land	County Total	% of Harvest Taken on Public Land	Public Land	County Total	% of Harvest Taken on Public Land	% of County's Total Harvest Taken by NR	% of County's Public Land Harvest Taken by NR
Lawrence	82,000	28	33.4	411	1,445	28.4	185	339	54.6	19.0	31.0
Scioto	72,000	18	13.5	230	1,994	11.5	84	332	25.3	14.3	26.8
Muskingum	50,000	12	18.9	730	4,455	16.4	267	819	32.6	15.5	26.8
Vinton	49,000	19	22.4	432	2,369	18.2	196	433	45.3	15.5	31.2
Hocking	45,000	17	22.2	507	2,773	18.3	230	548	42.0	16.5	31.2
Washington	40,000	10	11.1	289	2,858	10.1	80	469	17.1	14.1	21.7
Morgan	38,000	14	21.9	556	2,613	21.3	161	665	24.2	20.3	22.5
Coshocton	oshocton 37,000 10		13.3	639	5,688	11.2	231	871	26.5	13.3	26.6
Athens	33,000	10	15.1	406	2,881	14.1	157	851	18.4	22.8	27.9
Monroe	31,000	10	14.1	302	2,344	12.9	68	274	24.8	10.5	18.4

<sup>\*</sup>Lands open to public hunting that are owned or administered by the ODNR or U.S. Forest Service (Wayne National Forest), rounded to the nearest 1,000 acres.

#### Deer Age Structure

In 2017, ODNR Division of Wildlife personnel aged 6,627 deer during the weeklong gun season, just over 8% of the reported harvest. Data was collected from 50 processors in 38 counties. Figure 6 shows how the age structure of the antlered harvest has changed over time. The proportion of yearlings in the antlered buck harvest has been steadily declining since the late 1990s. In the early to mid-1980s, nearly 70% of the bucks harvested were yearlings. Today, that percentage is down close to 40%. A reduction of this magnitude would normally be a result of some type of regulation change, such as antler point restrictions. In Ohio's

Figure 6. Statewide trends in antlered buck age structure based on a sample of the gun season harvest, 1980 – 2017.



case, the decline in yearling buck harvest is likely due to at least two factors. Most importantly, Ohio hunters seem to be aware of the benefits of allowing bucks to mature, and have acted on their own self-imposed restrictions. Second, the growth of the deer herd over time, coupled with liberal antlerless harvest opportunities, likely reduced the pressure on the antlered segment of the population.

### **HUNTER SUCCESS, PARTICIPATION, AND EFFORT**

In the 2017-18 season, 206,170 resident adults purchased at least one either-sex or antierless-only permit and 72,383 harvested at least one deer, resulting in a 35% hunter success rate - the highest success rate achieved in the last seven years (Table 7, Figure 7). Hunter success rates differed markedly on public and private land. Thirty-three percent of private land hunters were successful, as compared to only 16% of public land hunters. Because our deer hunter surveys are limited to resident adult hunters, rates may be different for nonresident hunters, as well as youth, disabled veterans, free and reduced cost seniors, and landowners.

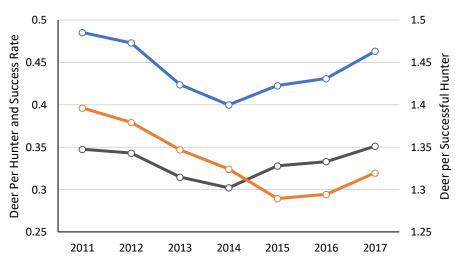


Figure 7. Success rate and average number of deer per hunter and per successful hunter, 2011-2017.

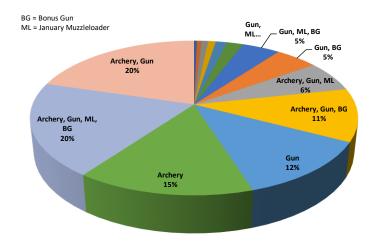
Deer Per Successful Hunter

Deer Per Hunter

Success Rate

During the 2017-18 season, 75% of hunters bowhunted, while 81%, 43% and 35% reported hunting in the gun, bonus gun, and muzzleloader seasons, respectively (Table 7; Figure 8). Hunter effort has remained relatively constant since 2001, though the average number of days hunted seems to have dipped slightly this year. During the 2017-18 season, archery, gun, and muzzleloader hunters spent, on average, 16.3, 3.5, and 2.1 days hunting those seasons, with hunters averaging 16.6 days in the field over the course of the entire season (Table 8). Roughly one in five gun hunters reported a deer harvest and archery hunters posted a success rate of 22% (Table 7). When considering success rates, it is important to remember that success in any particular season is very much dependent upon success in other seasons. More than 70% of gun hunters are also bow hunters that likely hunt prior to the gun season. Because most hunters participate in multiple seasons and many choose to hunt bucks only, season-specific success rates have limited value and certainly cannot be

Figure 8. Season-specific hunter participation rates based on results of the 2017-18 deer hunter survey.



compared with other states where hunters have season-specific permits. Additionally, these estimates are derived from surveys of adult, resident hunters that purchased a deer permit. Therefore, season participation and success rates of nonresidents, youth, disabled veterans, seniors, and landowners are currently unknown.

Table 7. Participation and success rates for resident adult hunters on public and private land for the 2016-17 and 2017-18 deer seasons.

	Pa	rticipation	Rate	Estimate	ed Number of	Hunters	Number	of Successfu	Il Hunters	S	uccess Rat	e (%)
	2016	2017	% Change	2016	2017	% Change	2016	2017	% Change	2016	2017	% Change
Total				216,251	206,170¹	-4.7	71,991	72,383 <sup>2</sup>	0.5	33.3	35.1 <sup>3</sup>	5.5
Private				204,404	195,044 <sup>4</sup>	-4.6	64,398	64,829	0.7	31.5	33.2	5.5
Public				63,249	57,673 <sup>5</sup>	-8.8	9,661	9,415	-2.5	15.3	16.3	6.9
Archery	0.80	0.75 <sup>6</sup>	-5.7	172,920	155,484 <sup>7</sup>	-10.1	36,170	34,313	-5.1	20.9	22.1	5.5
Private				163,447	147,093 <sup>8</sup>	-10.0	32,875	31,251	-4.9	20.1	21.2	5.6
Public				50,576	43,494	-14.0	3,894	3,536	-9.2	7.7	8.1	5.6
Gun	0.82	0.81	-0.5	176,346	167,356	-5.1	31,411	33,784	7.6	17.8	20.2	13.3
Private				166,686	158,325	-5.0	27,058	29,251	8.1	16.2	18.5	13.8
Public				51,578	46,815	-9.2	4,642	4,779	3.0	9.0	10.2	13.4
Bonus Gun	0.45	0.43	-4.2	96,537	88,130	-8.7	4,799	7,570	57.7	5.0	8.6	72.8
Private				91,249	83,374	-8.6	4,297	6,699	55.9	4.7	8.0	70.6
Public				28,235	24,653	-12.7	510	874	71.4	1.8	3.5	96.3
Muzzleloader	0.43	0.35	-18.6	92,708	71,920	-22.4	8,308	6,693	-19.4	9.0	9.3	3.8
Private				87,629	68,039	-22.4	7,248	5,932	-18.2	8.3	8.7	5.4
Public				27,115	20,119	-25.8	1,097	771	-29.7	4.0	3.8	-5.3

<sup>&</sup>lt;sup>1</sup>The number of adult resident hunters who purchased at least one deer permit during the 2017-18 season. Excludes nonresidents, youth, seniors, disabled veterans, and landowners.

 $<sup>^2</sup>$ The number of adult resident hunters that reported harvesting at least one deer during the 2017-18 season.

<sup>&</sup>lt;sup>3</sup>The number of successful adult resident hunters divided by the number of adult resident hunters that purchased a deer permit

<sup>&</sup>lt;sup>4</sup>Among respondents to the 2017-18 deer hunter survey, 94.6% indicated that they hunted at least once on private land during the season. This rate is applied to the known number of licensed adult hunters to estimate the total number of hunters hunting private land at least once during the 2017-18 season.

<sup>&</sup>lt;sup>5</sup>Among respondents to the 2017-18 deer hunter survey, 28.0% indicated that they hunted at least once on public land during the season. This rate is applied to the known number of licensed adult hunters to estimate the total number of hunters hunting public land at least once during the 2017-18 season.

<sup>&</sup>lt;sup>6</sup>Among respondents to the 2017-18 deer hunter survey, 75% indicated that they hunted at least one day during the 2017-18 archery season.

<sup>&</sup>lt;sup>7</sup>Estimated total number of licensed resident adults that hunted during the 2017-18 archery season. Estimate is based on an 75% participation rate among the 206,170 resident adults who purchased at least one deer permit during the 2017-18 deer season.

Proportion of hunters hunting private land at least once during the 2017-18 season (94.6%) multiplied by the estimated total number of resident adult archers (155,484).

Table 8. Average number of days spent hunting in 2001, 2011-13, and 2015-17 deer seasons.

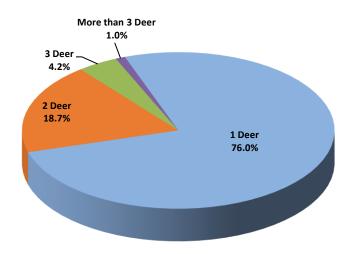
	2001	2011	2012	2013	2015	2016	2017
Archery	20.8	19.3	19.2	19.7	20.3	17.0	16.3
Gun	3.8	4.0	3.9	3.7	3.7	3.5	3.5
Bonus Gun	-	1.6	1.5	-	1.6	1.5	1.5
Muzzleloader	2.8	2.4	2.2	2.0	2.1	2.1	2.1
All Seasons	17.3	19.9	20.0	19.7	20.3	18.0	16.6

From 2011 to 2014, there was a steady decline in the number of deer taken per hunter. In 2011, 243,126 resident adults harvested 117,988 deer, or 0.49 deer per hunter. This figure declined to 0.47 in 2012, 0.42 in 2013, and in 2014 there were 0.40 deer harvested per resident adult. However, this trend began to reverse in 2015 with a slight increase up to 0.42, 0.43 in 2016, and in 2017 the figure climbed to 0.46 deer harvested per hunter. Similarly, there was a steady decline in the number of deer taken by successful hunters from a high of 1.40 in 2011 to a low of 1.29 in 2015. Slight increases have occurred over the last two years, with successful hunters taking 1.32 deer in 2017 (Figure 7).

A little more than a decade ago, in spite of large deer populations and liberal bag limits, only 18% of successful hunters harvested more than one deer during the 2006 season. This changed dramatically with the introduction of the \$15 antlerless permit in 2007. From 2007 to 2011, there was a steady increase in the percentage of successful hunters harvesting more than one deer, peaking at 27% in 2011. Then, as deer populations were reduced and restrictions were placed on the use of the antlerless deer permit, the proportion of hunters taking more than one deer steadily declined, reaching 22% in 2016. Not surprisingly, given that all significant measures of the deer population indicate herd growth has occurred recently, the proportion of hunters harvesting more than a single deer increased to 24% in 2017. Of important note is the fact that statewide bag limits have little impact on both the number of deer harvested per hunter and the percentage of hunters harvesting multiple deer. For example, in 2012 the statewide bag limit was 18 deer. That year, successful hunters averaged 1.40 deer and only 27% reported harvesting more than one. The following year, the statewide bag limit was reduced by 50% to nine deer, yet the proportion of hunters bagging multiple deer and the average number of deer harvested dropped by just 3%.

As in years past, the vast majority of successful hunters (76%) harvested only a single deer in the 2017-18 season. This year, 18.7% of successful hunters bagged two deer, 4.2% harvested three, and only 1.0% took four or more deer (Figure 9). Again, to emphasize the limited influence of a large bag limit, less than 1% of successful hunters harvest more than four deer in a single season, and specifically in 2017, only 117 of the 206,170 permit buyers (0.06%, or about one out of every 2,000 hunters) filled their bag limit.

Figure 9. Percent of successful hunters taking one, two, three, or more than three deer during the 2017-18 season.



#### **DISEASE UPDATE**

#### Hemorrhagic Disease

Hemorrhagic Disease (HD) is the most important viral disease of white-tailed deer in the United States. It is caused by related orbiviruses of the epizootic hemorrhagic disease (EHD) or bluetongue (BT) virus serogroups. Since disease caused by EHD and BT viruses are indistinguishable without laboratory testing, the general term, hemorrhagic disease (HD), is often used. The virus is transmitted by biting flies of the genus *Culicoides*, which are commonly called midges, sand gnats, or no-see-ums. For this reason, the occurrence of HD is seasonal, and coincides with periods of the year when these biting flies are abundant - typically late July through November. The first hard freeze of the fall causes a sudden decline in *Culicoides* activity, eliminating new cases of HD.

Deer develop signs of illness about seven days after exposure and symptoms include loss of appetite and fear of humans, excessive salivation, rapid pulse and respiration rate, and high fever (which cause deer to seek water to lie in as a way to reduce their body temperature). Midwestern deer populations have developed little resistance to HD, and are likely to die within three days of the onset of symptoms. Hemorrhagic disease does not affect humans, impact the safety of consuming venison, nor pose a serious threat to cattle (EHD generally doesn't affect sheep, but BT can cause serious disease). The severity and distribution of HD outbreaks are highly variable. While HD outbreaks only occur sporadically in Ohio (recent significant disease

Figure 10. Number of sick or dead deer reported from August to November, 2017. Clusters of townships with multiple reports would suggest EHD as the most likely cause.

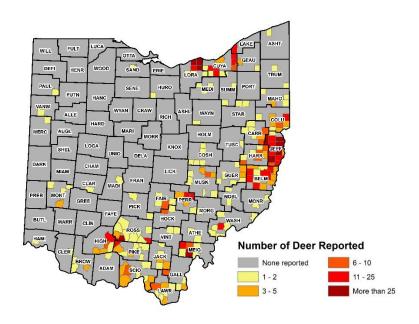
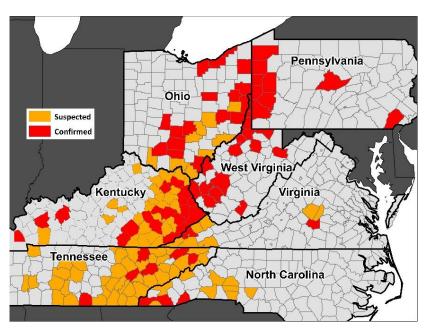


Figure 11. Regional view of distribution of hemorrhagic disease in 2017.



events include 2007, 2012, and 2017), they can be severe with locally high mortality. Presently, there are no wildlife management tools that can prevent or control HD. While significant localized mortality can cause alarm among the public, past experiences show that HD will not eliminate entire populations, the disease will come to an end with the onset of cold weather, and deer populations will bounce back within a few years.

In the summer of 2017, the ODNR Division of Wildlife documented significant HD mortality in several Ohio counties, including Jefferson, Lorain, Belmont, and Cuyahoga (Figure 10). Reports of dead or sick deer indicated that many of the Ohio River counties, as well as those along the Scioto, experienced at least some HD mortality in 2017. Samples taken from around the state confirmed EHD virus activity in 17 different counties. Many neighboring states reported significant HD mortality as well, and Figure 11 shows that the disease impacted much of the Appalachian region.

#### **Chronic Wasting Disease**

Chronic Wasting Disease (CWD) is a fatal disease of the central nervous system of mule deer, white-tailed deer, elk, and moose. CWD is disease caused by abnormal proteins, or prions (not a bacteria or virus), that ultimately destroy brain tissue. This type of disease is known as a transmissible spongiform encephalopathy. This family of diseases includes bovine spongiform encephalopathy (mad cow disease), scrapie in sheep, and Creutzfeldt-Jakob Disease in humans.

Since 2002 the ODNR Division of Wildlife has conducted statewide CWD surveillance, testing 17,493 deer. To date, there has yet to be a wild, free-ranging deer test positive for the disease in Ohio. In 2017, a total of 1,512 deer were submitted for CWD testing. ODNR Division of Wildlife staff collected 779 road-killed deer from 57 counties and hunters submitted 661 deer (16 of which were escaped captive deer) for CWD testing. An additional 15 escaped or confiscated captive cervids, deer displaying abnormal behavior and/or poor physical condition (n=55), a euthanized research animal, and one deer found dead under suspicious circumstances were also tested for CWD in 2017. CWD was not detected in any of these samples.

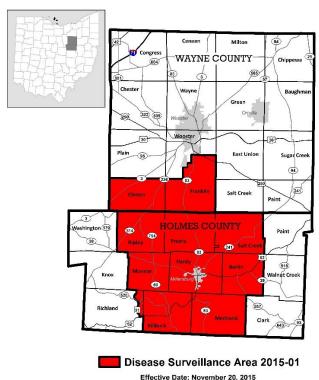
#### **Holmes County Disease Surveillance Area**

In October 2014, a mature buck from a shooting preserve in Holmes County tested positive for CWD, becoming the first-ever CWD-positive deer in Ohio. The shooting preserve was depopulated in April 2015, and testing revealed no additional CWD-positive animals. Subsequent testing of nearly 300 free-ranging deer in an eight-township area around the shooting preserve failed to detect any CWD-positive deer as well. However, in spring of 2015, two more CWD-positive deer were reported from a captive white-tailed deer breeding pen in Holmes County. This herd was depopulated in June 2015, and 16 additional deer tested positive for the disease, bringing the total of CWD-positive animals found in Ohio to 19 (all in captive herds). In response to these findings, the ODNR Division of Wildlife conducted targeted surveillance in the immediate vicinity of the infected facility during the summer of 2015. Staff collected 18 deer, including two

that had escaped from captive facilities, with none testing positive for CWD.

Additionally, the focus area in 2015 was expanded to include two townships in southern Wayne County, and the 10-township focus area was declared a Disease Surveillance Area (DSA, Figure 12). This DSA designation will remain in effect for a minimum of three years and the following regulations apply: 1) required submission of deer harvested within the DSA to ODNR Division of Wildlife inspection stations for sampling during the gun and muzzleloader seasons, 2) prohibit the placement of or use of salt, mineral supplement, grain, fruit, vegetables or other feed to attract or feed deer within the DSA boundaries, 3) prohibit the hunting of deer by the aid of salt, mineral supplement, grain, fruit, vegetables or other feed within the DSA boundaries, and 4) prohibit the removal of a deer carcass killed by motor vehicle within the DSA boundaries unless the carcass complies with the cervidae carcass regulations (see wildohio.gov for additional information on carcass regulations). During the 2017-18 season, the third year under DSA rules, 657 deer from the DSA were tested for CWD. Most samples (n=506) were collected from hunter-harvested deer at inspection stations during

Figure 12. Disease Surveillance Area 2015-01 (DSA)



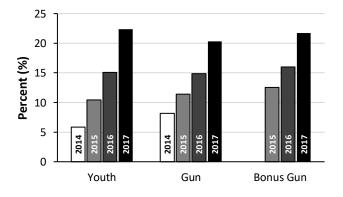
Effective Date: November 20, 2015

Ohio's three firearms seasons (n=13 days). An additional 127 hunter-harvested samples were obtained from processors, taxidermists, and other modes of collection. In addition to these 633 hunter-harvested deer, 20 road-killed, 2 suspect (poor condition and/or displaying odd behavior), and 2 escaped captive deer were tested for CWD. Again, CWD was not detected in any of the deer tested.

### **LOOKING BACK**

The 2017-18 season marked the fourth year that straight-walled cartridge (SWC) calibers were legal for deer hunting. Hunters harvested 1,093, 14,747, and 3,053 deer with SWC rifles during the youth, gun and bonus gun seasons, respectively, accounting for 22%, 20% and 22% of the total reported harvest during those seasons. The proportion of the harvest taken with SWC rifles has increased each year since the 2014 season when they were first legalized for deer hunting (Figure 13). According to the results of the 2017-18 Deer Hunter Effort and Harvest Survey, the majority of hunters (58%) still used a shotgun during the traditional seven-day gun season, 16% used a muzzleloader, and 22% used a SWC rifle. The .45-70 was the most popular choice among hunters, with 47% opting for this caliber. Other popular choices included the .44 Magnum (28%), .450 Bushmaster (10%), and .444 Marlin (9%).

Figure 13. Proportion of youth, gun, and bonus gun season harvest taken with straight-walled cartridge rifles, 2014-2017.



Changes made for the 2017-18 season included a bag limit reduction from three to two in seven northwestern counties to stimulate additional population growth. While most of those counties had shown stable to slightly increasing trends, further reduction in the antlerless harvest was necessary to achieve the desired level of growth in that region of the state. The proportion of the harvest that is antlerless is a reliable measure of the harvest pressure placed on the antlerless segment of the population and historical data reveal a predictable relationship between this measure and subsequent population growth (for more details see the 2016-17 Ohio Deer Summary available at wildohio.gov). From 2014-2016, antlerless deer comprised an average of 60.6% of the total harvest in this region. The bag limit reduction achieved the goal of reducing harvest pressure on the antlerless segment of the population, as the 2017 antlerless harvest in this seven-county region dropped to 55.7% of the total.

The other notable change made for the 2017-18 season was a bag limit increase from two to three in 21 southeastern counties. Significant herd growth was expected in these counties as a result of the reduced antlerless harvest during the 2015-16 and 2016-17 seasons. Left unchecked, herds in this region would likely exceed socially optimal levels as defined by the 2015 goal-setting process. In accordance with the desire for moderate population increases in southeastern Ohio, a harvest management tool that would increase antlerless harvest enough to slow the rate of herd growth, but not stop it completely, was needed. A 2deer bag limit in 2015-16 and 2016-17 yielded an antlerless harvest that was roughly 55% of the total the region's lowest level of antlerless harvest intensity in nearly 20 years. The bag limit increase from two to three moved the antlerless harvest in the desired direction, up to 57% of the total, however the magnitude of increase was slightly less than expected.

### 2018-19 SEASON PREVIEW

The ODNR Division of Wildlife remains committed to providing quality deer now and into the future. To accomplish this, hunters must harvest an adequate number of does each year to maintain the herd at a level that is not only socially acceptable to most, but that the habitat is capable of supporting in good to excellent condition. In the mid- to late-2000s, deer populations across most of the state had reached record-highs - well above population goals that had been established in 2000. Through a combination of liberal bag limits, reduced cost antierless permits, and other programmatic changes, including education on the importance of an adequate doe harvest, populations in most areas of the state were reduced to, or very near, goal by 2014. Starting in 2013, regulations became increasingly conservative to alleviate harvest pressure on antierless deer and stabilize populations. Predictably, the results of the 2015 population goal setting process indicated that most areas of the state could tolerate moderate herd growth (see *Population Goal Setting Surveys* on page 20 for more information), and, consistent with these desires, data indicate that deer populations in most areas of the state are increasing.

Season dates, aside from minor calendar adjustments, and county bag limits, except for Jefferson County (reduced from three to two), will remain the same for the 2018-2019 season. The only significant changes in store for the 2018-19 season are for public hunting areas (defined in Ohio Administrative Code, 1501:31-15-04, as the areas listed at <a href="http://wildlife.ohiodnr.gov/portals/wildlife/pdfs/public%20areas/Public%20hunting%20areas.pdf">http://wildlife.ohiodnr.gov/portals/wildlife/pdfs/public%20areas/Public%20hunting%20areas.pdf</a>). The new regulations are: 1) a statewide limit of one antlerless deer on public hunting areas, and 2) no antlerless deer may be taken on public hunting areas after the close of the 7-day gun season (remainder of season will be buck-only).

These regulations are due, in large part, to the feedback received from deer hunter surveys over the past several years. In a 2015-16 survey, nearly two-thirds of those that self-identified as hunting mostly or exclusively public land indicated support for reducing antierless harvest on public lands to encourage herd growth. Additionally, when compared to the general population of resident deer hunters, those hunting public land have reported much lower satisfaction for various aspects of their hunting experience (Figure 14).

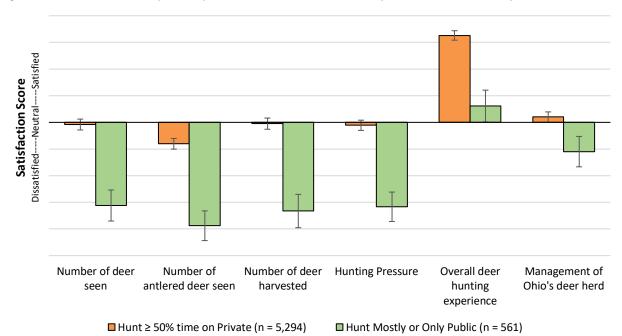


Figure 14. Satisfaction scores of public vs private land hunters based on three years of deer hunter surveys, 2015-2017.

Once it was decided to reduce antlerless harvest on public hunting areas, several management options were considered. First, a suite of options was presented to hunters participating in the 2015-16 deer hunter survey. Results indicated strong support for reducing/eliminating antlerless permit use on public areas (Figure 15). However, due to the limited availability of antlerless permits (only valid in 10 urban counties), their use on public hunting areas has already nearly been eliminated. Another option with significant support was a bag limit reduction. While certainly a good starting place, a bag limit reduction alone would likely have little impact, as only 10% of successful hunters harvested more than one antlerless deer on public land in the 2017-18 season.

To encourage a meaningful reduction in the antlerless harvest on public hunting areas, further measures, in addition to a single antlerless deer limit, would be necessary. Support for fewer either-sex days and season restrictions (buck-only muzzleloader season, for example) was not very strong among survey participants (Figure 15). However, if population growth is the ultimate goal, an appropriate reduction in the antlerless harvest requires short-term sacrifices in hunter opportunity and success. On public land, where so few hunters bag more than a single deer, reducing antlerless harvest is primarily achieved by reducing the number of hunters that take an antlerless deer. Limiting hunters to buck-only following the gun season should afford sufficient protection of antlerless deer to foster population growth. In a typical deer season, roughly 25% of the antlerless deer taken on public land are harvested after the gun season (Figure 16). In fact, about three out of every four deer taken on public land during the bonus gun (73%), muzzleloader (79%), and late archery (75%) seasons are antlerless. With a regulation in place to eliminate antlerless harvest after the gun season, hunters may shift some harvest of antlerless deer to earlier in the season, making a full 25% reduction in the antlerless harvest unlikely. However, meaningful savings of antlerless deer can be expected and should serve to increase deer populations over time.

Figure 15. Public land hunters' (n = 309) support for potential management options that could reduce antlerless harvest on public lands. Data collected from 2015 deer hunter survey.

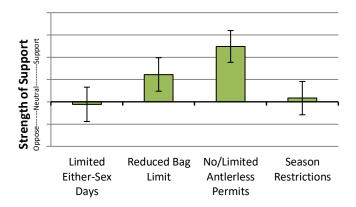
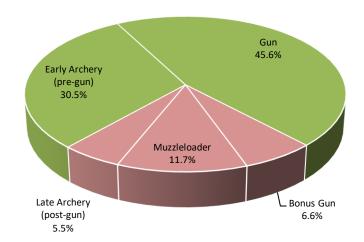


Figure 16. Seasonal distribution of the antlerless harvest on public land.

Data represent an average of previous three years (2015-2017). Red shading indicates the portion of the antlerless harvest that will be impacted by the new 'buck-only after gun season' regulation.



### **HUNTER FEEDBACK**

Each year since 2011, and periodically over the last several decades, the ODNR Division of Wildlife has sent surveys to a random sample of adult resident deer permit buyers. These surveys are designed to not only gather important information about season participation, hunting effort, and deer observations, but to also seek hunters' opinions on important deer management issues. In 2017, survey invitations were successfully delivered via email to 9,403 randomly selected, resident deer permit buyers. While 1,264 hunters (13%) answered at least one survey question, only 1,001 hunters completed the survey - a response rate of 11%.

Survey results have been used in combination with permit sales and annual harvest data to inform decision makers during the regulation setting process.

Additionally, many hunters find survey results interesting and have asked for a summary of our findings. Therefore, this section of the annual harvest summary is dedicated to annual hunter survey results. Our hope is this will not only be interesting and informative, but to also serve as an incentive for hunters to return their survey should they receive one in the future.

#### **Habitat-based Deer Management Units**

The ODNR Division of Wildlife began a project to identify new Deer Management Units in 2012. A postdoctoral researcher at The Ohio State University completed the project and delivered a final report to the ODNR Division of Wildlife in spring of 2015. The project was then advertised to hunters through various presentations around the state, including Deer Summits that were held in the winter of 2015, and was presented as a "pre-proposal" at the statewide open houses in spring of 2015. Prior to officially proposing the change, it was determined that additional feedback from deer hunters was desirable. Therefore, in addition to organizing a series of meetings with a panel of stakeholders from around the state, a series of questions was created for inclusion in the 2017-18 deer hunter survey. Survey participants were provided the following background information before answering any questions.

Since 1943, deer have been managed by county. While convenient, county boundaries fail to reflect variation in deer habitat, a major determinant of deer population size. Thus, deer numbers have the potential to vary significantly within the same county. These sometimes widely varying deer populations are managed with a single set of regulations (bag limit), which often results in areas of very high and very low deer numbers within the county. One solution would be to create new deer management units that reflect major differences in habitat. Counties like Richland, Licking, and Holmes would be split to

reflect the dramatic habitat differences found there, while counties like Athens, Hocking, Jackson, and Vinton (with much less variation in habitat), would be combined to form a new habitat-based deer management unit. By combining areas that are most similar regarding habitat and deer population characteristics, harvest regulations should yield more stable and uniformly distributed deer populations.

An additional benefit of fewer, habitat-based, management units would be improvements in data collection. Whether it is biological data (deer age and condition) or surveys of hunters, it is impossible to collect sufficient data to conduct meaningful analyses at the county level. However, with significantly fewer habitat-based management units, current data limitations would no longer be an issue.

Due to past efforts by the ODNR Division of Wildlife to inform hunters about this project, survey participants were first asked, "Other than the information presented in this survey, have you previously (within the last two years) seen or heard anything about habitat-based Deer Management Units in Ohio?" Only 17% of the 1,258 hunters answering this question indicated that they were at least somewhat familiar with the project, signaling that any future attempts to implement DMUs should be accompanied by an aggressive communications campaign to notify hunters of the change. While few respondents indicated prior knowledge of DMUs, most indicated at least some understanding for why the project was initiated. When asked to rate their understanding of the rationale for creating DMUs, most (49%) rated their understanding as either 'good' or 'very good' and only 18% reported a 'poor' or 'very poor' understanding. Finally, when asked to describe their feelings about implementing habitatbased Deer Management Units, an overwhelming majority responded that the concept was either a 'good' (50%) or 'very good' idea (22%). Only 3% of respondents thought that creating DMUs would be a 'bad' or 'very bad' idea (Figure 17).

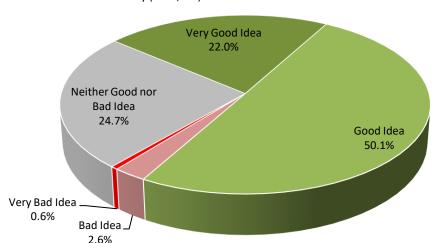


Figure 17. Opinions of Habitat-based Deer Management Units according to results of the 2017-18 deer hunter survey (n = 1,255).

#### **Antlerless Allocations**

Regulated hunting has proven to be the most efficient way to achieve deer population objectives. Biologists adjust hunting regulations to control the composition of the harvest (% antlerless), which ultimately influences deer population size. In Ohio, bag limit is the harvest management tool used for this purpose. However, it is evident that additional harvest management tools are necessary to meet hunter desires for a stable, high-quality deer population while maintaining consistent regulations. Bag limits, by nature, present discrete options for managing population growth. For instance, if historical data show that, on average, a 3-deer bag limit results in 5% annual growth and a 4-deer bag limit causes 5% reduction, which regulation should be used to maintain a stable (0% growth) population? Choosing a 3-deer bag would lead to populations growing beyond desirable levels after a couple of years, which would then require regulation adjustment (4-deer) to reduce populations. Once populations were sufficiently reduced, regulations would then have to be changed once again to prevent populations from falling below goal. This example epitomizes the difficulty, or in some cases the impossibility, of using bag limits to maintain a stable deer population. To maintain some semblance of stability requires frequent regulation adjustments. Another drawback to bag limits is the fact that the

amount of harvest pressure on antlerless deer is a direct result of both the number of deer an individual can harvest and the total number of individuals hunting. While they do limit the number of deer an individual can harvest, bag limits do nothing to control the number of hunters that can hunt and potentially take at least one antlerless deer.

Given some of the shortcomings associated with using bag limit to control the harvest, combined with a continual desire to improve deer management efforts in Ohio, the ODNR Division of Wildlife is exploring other tools. An alternative option for controlling the annual harvest is an antlerless allocation. This is simply a lottery-based system of offering hunters a limited number of discounted antlerless-only permits. Unlike a bag limit with discrete post-harvest outcomes antlerless allocations provide the ultimate 'fine-tuning' capability by simply adjusting the number of permits that are made available to achieve a particular level of antlerless harvest. Additional benefits include the ability to easily correct for year-to-year variation in the harvest with minor adjustments to the allocation (rather than a wholesale bag limit change), and stable harvest regulations – something that is very important to many hunters. Any adjustments to the desired antlerless harvest each season are accomplished by manipulating the size of the allocation, which means there are no visible "changes" in the regulations digest to illicit

confusion or dissatisfaction among hunters. Before committing to significant changes in the way the annual deer harvest is managed, the 2017-18 deer hunter survey was used to seek hunter opinions on the issue. Participants were first provided the following background information:

In its simplest form, deer management occurs in two-steps: 1) a population goal is set and 2) the antlerless harvest is adjusted to move the population to goal. Presently, bag limit is used for this purpose. However, bag limit adjustments are imprecise and sometimes have unpredictable results. Furthermore, bag limits only control the number of deer a hunter can harvest, not the number of hunters that can buy a deer permit. Without greater control over the antlerless harvest, deer numbers will continue to fluctuate widely, leading to more frequent regulation changes.

More precision in controlling the antlerless harvest, and thus population size, could be achieved by issuing a predetermined number of antlerless permits in each management unit each year. These antlerless permits would be unit-specific. Hunters would declare the unit (county or management unit) in which they wished to use their antlerless permit prior to

purchase. Each management unit would have a cap on the number of antlerless permits that could be sold in any given year. For this reason, these antlerless permits would be sold using a lottery to ensure that all hunters interested in purchasing an antlerless permit would have equal opportunity. Any leftover permits would then be made available overthe-counter on a first-come, first-served basis. Unlike the current antlerless permit, permits issued under this system would be valid for the entire season.

Greater control over the antlerless harvest would lead to 1) greater population stability and 2) few, if any, annual regulation changes. Under this system, ALL hunters would be guaranteed one either-sex permit, valid anywhere in the state.

Nearly 80% of hunters responded that they had a 'good' (46%) or 'very good' (34%) understanding of the reasons for regulating the antierless harvest using this system as described above. When asked about using allocations to manage the antierless harvest, almost two-thirds of hunters responded positively, saying that it was a 'good' (43%) or 'very good' (19%) idea (Figure 18). Only 15% of hunters felt that managing the harvest in this manner was a bad idea.

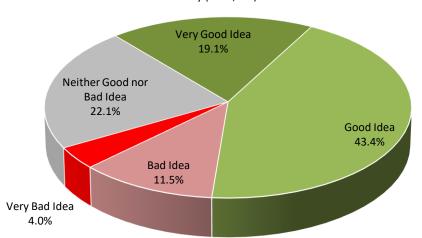


Figure 18. Opinions of using an allocation system to regulate the annual harvest according to results of the 2017-18 deer hunter survey (n = 1,238).

#### **Population Goal Setting Surveys**

Deer population goals were revised in the fall of 2015. Historically, this process has involved only rural landowners and farmers. However, deer hunter opinions were also considered in this most recent survey. Both production landowners and hunters were asked to answer the same question: *In the area that you hunt/farm, are there too many, too few, or just about the right number of deer?* The ODNR Division of Wildlife sent 18,500 surveys to a randomly selected group of deer permit buyers and received 6,712 useable responses, for roughly a 36% response rate. Statewide, 50% of hunters reported *too few,* 5% reported *too many,* and 40% of hunters said that the deer population in the area they hunt the most was just about right. Surveys were also mailed to a random sample of almost 17,000 production landowners. Nearly 10,000 of these were returned for a 60% response rate. Statewide, 29% of farmers believed there to be too many deer, 14% reported too few, and 50% said that the deer population was just about right. Considering the opinions of both groups, our plans are to continue to manage for moderate herd growth in most parts of the state with the end goal being equal proportions of hunters and farmers reporting too few and too many deer, respectively.

Figure 19 provides a regional perspective on the desired management direction of deer populations. For much of the state, opinions of both groups would suggest that there is room for moderate herd growth (shaded light green in Figure 19), with an average of 28% of farmers and 48% of hunters reporting "too many" and "too few" deer, respectively. Alternatively, differences among the two survey groups point to room for more substantial herd growth in the northeast corner of the state as well as in some of the more agricultural portions of western Ohio, with an average of 23% of farmers and 58% of hunters reporting "too many" and "too few" deer, respectively in these regions.

Management
Direction

Stabilize

% of Farmers
Responding
"too many"
"too few"

35

39

Figure 19. Regional deer management direction derived from surveys of production landowners and hunters in 2015.

Average responses for each region are provided in the legend.

28

23

48

58

Moderate Increase

Increase

### UNDERSTANDING POPULATION TRENDS

While the ODNR Division of Wildlife does not routinely count deer, several trends that reflect changes in the size of the deer population are monitored annually. Some of the trends used include: the number of bucks harvested, carcasses removed from roadways, deer seen per hour, and number of days to harvest a deer. Rather than direct population estimates, each of these measures serve as an index to the size of the population. In other words, they change when the deer population changes. Contrary to popular belief, biologists do not need to know exactly how many deer are on the landscape to properly manage the population. Rather, determining 1) whether the population stable, increasing, or decreasing, and 2) whether its current trajectory is in agreement with population objectives are key to making harvest management decisions. These indices provide this valuable information.

Though the annual buck harvest has been used as the primary index of deer population size, a host of variables can influence the number of bucks harvested each year. Crop harvest timing, mast availability, and weather on traditionally high harvest days (opening day of gun season) can certainly impact harvest. Using the annual buck harvest as an index to population size also assumes that hunter participation and effort is relatively constant from year to year. Unfortunately, as hunter numbers continue to decline, we have had to develop a buck harvest index that accounts for the annual decline in hunting pressure. Additionally, we rely heavily on annual hunter surveys. In the annual Deer Hunter Effort and Harvest Survey hunters provide information regarding their effort (number of days hunted), harvest, and opinions of the deer population in the area they hunt. Finally, participants in the annual Bowhunter Survey record time spent hunting and number of deer seen on each hunting trip. Collectively these data allow biologists to determine if the population is stable, growing, or declining and, most importantly, determine if trends are in accordance with the results of population goal setting surveys (see *Population Goal Setting Surveys* on page 20). Figure 20 illustrates a high level of consistency between the different indices that are used to monitor population trends.

If you would like to take an active role in the management of Ohio's deer herd, we encourage anyone interested in participating in the annual Bowhunter Survey to contact us by phone at 1-800-WILDLIFE (1-800-945-3543) or via email at wildinfo@dnr.state.oh.us.

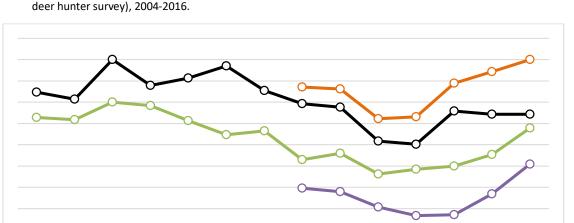


Figure 20. Statewide deer population trends based on reported buck harvest, buck harvest per permit buyer, deer observed per hour of bowhunting (annual bowhunter survey), and deer harvested per 100 days of hunting effort (annual deer hunter survey), 2004-2016.

2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017

Buck Harvest / 100 permit buyers

Buck Harvest

→ Deer Harvested / 100 Hunter-Days

Deer Observed / Hour

### APPENDIX 1

### **COUNTY HARVEST SUMMARIES**

			Bucks		D	oes	Butto	n Bucks	т	otal Harve	est
County	Season	2017	3-year average	Diff. (%)	2017	3-year average	2017	3-year average	2017	3-year average	Diff. (%)
	Gun	453	478	-5.2	569	673	138	125	1,160	1,276	-9.1
	Crossbow	488	479	1.9	372	404	58	62	918	945	-2.9
	Vertical Bow	313	390	-19.7	267	289	35	44	615	722	-14.9
Adams	Bonus Gun	67	55	21.1	114	111	22	17	203	183	10.7
	Muzzleloader	70	88	-20.5	122	153	16	22	208	263	-21.0
	Youth	68	83	-18.1	28	43	9	12	105	138	-23.9
	Total	1,468	1,584	-7.3	1,483	1,686	280	284	3,231	3,553	-9.1
	Gun	128	138	-7.5	170	175	42	50	340	363	-6.4
	Crossbow	140	145	-3.2	142	149	37	46	319	339	-6.0
	Vertical Bow	81	84	-3.6	68	89	25	23	174	196	-11.1
Allen	Bonus Gun	19	16	16.3	30	22	12	9	61	47	28.9
	Muzzleloader	23	23	-1.4	30	21	4	6	57	51	12.5
	Youth	10	17	-40.0	7	12	4	5	21	34	-38.2
	Total	404	427	-5.4	450	474	125	139	979	1,040	-5.9
	Gun	475	428	11.0	687	664	194	179	1,356	1,271	6.7
	Crossbow	377	351	7.5	320	323	87	80	784	754	3.9
	Vertical Bow	206	215	-4.2	237	239	28	34	471	488	-3.5
Ashland	Bonus Gun	90	59	53.4	199	118	50	29	339	206	64.3
	Muzzleloader	57	58	-1.2	120	136	29	29	206	223	-7.6
	Youth	36	55	-34.5	28	44	8	11	72	111	-34.9
	Total	1,249	1,172	6.5	1,602	1,538	403	367	3,254	3,078	5.7
	Gun	596	618	-3.6	1,149	1,087	344	307	2,089	2,012	3.8
	Crossbow	570	573	-0.5	651	667	191	177	1,412	1,417	-0.3
	Vertical Bow	231	251	-8.1	313	313	72	72	616	637	-3.2
Ashtabula	Bonus Gun	120	98	22.9	274	233	88	72	482	403	19.6
	Muzzleloader	73	78	-6.0	189	210	55	62	317	350	-9.4
	Youth	51	48	5.5	44	52	17	22	112	122	-8.4
	Total	1,652	1,679	-1.6	2,650	2,586	774	721	5,076	4,987	1.8
	Gun	615	611	0.7	849	798	123	134	1,587	1,543	2.8
	Crossbow	446	482	-7.4	284	276	30	41	760	799	-4.9
	Vertical Bow	368	410	-10.3	275	257	30	33	673	700	-3.9
Athens	Bonus Gun	82	68	20.6	137	125	21	16	240	209	15.0
	Muzzleloader	122	118	3.1	204	231	26	34	352	384	-8.3
	Youth	55	72	-23.3	31	38	9	14	95	123	-23.0
	Total	1,697	1,771	-4.2	1,790	1,740	245	275	3,732	3,786	-1.4

**APPENDIX 1**COUNTY HARVEST SUMMARIES

			Bucks		D	oes	Butto	n Bucks	т	otal Harve	est
County	Season	2017	3-year average	Diff. (%)	2017	3-year average	2017	3-year average	2017	3-year average	Diff. (%)
	Gun	129	112	15.2	150	139	53	48	332	300	10.8
	Crossbow	115	104	10.6	103	101	20	23	238	228	4.4
	Vertical Bow	65	61	6.6	64	67	12	15	141	143	-1.6
Auglaize	Bonus Gun	18	14	28.6	32	24	4	4	54	42	27.6
	Muzzleloader	15	16	-4.3	34	28	8	8	57	51	11.0
	Youth	11	15	-28.3	8	16	1	5	20	36	-43.9
	Total	357	325	9.8	393	380	98	104	848	809	4.8
	Gun	460	548	-16.0	639	707	129	113	1,228	1,368	-10.2
	Crossbow	356	390	-8.8	252	248	41	34	649	673	-3.5
	Vertical Bow	190	200	-5.2	126	131	13	13	329	344	-4.5
Belmont	Bonus Gun	87	72	20.3	154	140	20	22	261	234	11.4
	Muzzleloader	85	96	-11.8	176	194	46	37	307	327	-6.1
	Youth	80	96	-16.7	48	47	14	9	142	152	-6.6
	Total	1,262	1,412	-10.6	1,406	1,483	263	229	2,931	3,124	-6.2
	Gun	375	356	5.4	561	514	92	99	1,028	968	6.2
	Crossbow	287	301	-4.7	272	269	37	36	596	606	-1.6
	Vertical Bow	243	263	-7.5	206	253	36	31	485	546	-11.2
Brown	Bonus Gun	42	46	-8.0	107	90	22	17	171	152	12.3
	Muzzleloader	50	61	-18.0	92	125	19	18	161	204	-21.1
	Youth	37	45	-18.4	17	25	5	6	59	76	-22.7
	Total	1,047	1,082	-3.3	1,261	1,284	213	208	2,521	2,574	-2.1
	Gun	148	136	9.1	165	151	36	39	349	325	7.3
	Crossbow	277	247	12.0	219	213	48	47	544	507	7.4
	Vertical Bow	164	173	-5.4	126	146	26	27	316	346	-8.7
Butler	Bonus Gun	20	17	20.0	37	27	9	5	66	49	35.6
	Muzzleloader	28	28	-1.2	58	46	7	5	93	80	16.3
	Youth	13	12	5.4	5	6	2	3	20	21	-6.2
	Total	654	618	5.9	619	594	128	126	1,401	1,338	4.7
	Gun	606	592	2.4	934	819	188	189	1,728	1,599	8.0
	Crossbow	443	441	0.5	344	336	60	62	847	839	0.9
	Vertical Bow	217	247	-12.3	191	191	23	26	431	464	-7.2
Carroll	Bonus Gun	113	74	52.0	242	156	56	39	411	269	53.0
	Muzzleloader	99	95	3.8	203	214	46	42	348	351	-0.8
	Youth	68	73	-6.8	42	41	24	20	134	134	0.2
	Total	1,555	1,535	1.3	1,982	1,777	398	381	3,935	3,693	6.6

County			Bucks		ט	oes	Butto	n Bucks	10	otal Harve	est
	Season	2017	3-year average	Diff. (%)	2017	3-year average	2017	3-year average	2017	3-year average	Diff. (%)
(	Gun	181	159	13.8	205	195	43	48	429	401	6.9
	Crossbow	181	167	8.4	137	143	33	30	351	340	3.1
\	Vertical Bow	133	137	-2.7	104	118	18	24	255	278	-8.3
Champaign [	Bonus Gun	23	14	64.3	49	32	3	5	75	52	45.2
ı	Muzzleloader	19	25	-23.0	37	36	4	7	60	68	-11.8
,	Youth	12	23	-47.1	8	9	3	4	23	35	-34.9
٦	Total	552	529	4.3	541	539	104	118	1,197	1,186	1.0
	Gun	87	87	0.4	86	84	24	25	197	196	0.5
	Crossbow	121	121	0.3	77	91	15	17	213	229	-7.1
\	Vertical Bow	79	86	-8.5	71	81	9	12	159	179	-11.3
Clark	Bonus Gun	22	12	83.3	20	15	6	4	48	31	54.8
ı	Muzzleloader	20	15	36.4	21	24	6	5	47	43	8.5
,	Youth	8	10	-20.0	4	3	2	2	14	15	-6.7
1	Total	341	335	1.8	282	302	62	65	685	702	-2.4
(	Gun	291	252	15.5	379	364	71	70	741	686	8.0
	Crossbow	392	384	2.0	374	394	67	77	833	855	-2.5
\	Vertical Bow	245	286	-14.4	307	344	37	44	589	674	-12.7
Clermont	Bonus Gun	39	30	28.6	94	65	19	15	152	111	37.3
ı	Muzzleloader	37	47	-21.3	60	85	12	18	109	150	-27.3
,	Youth	20	31	-34.8	10	18	3	3	33	51	-35.7
٦	Total	1,029	1,036	-0.7	1,233	1,281	209	228	2,471	2,545	-2.9
	Gun	118	118	-0.3	144	133	40	34	302	285	6.1
	Crossbow	105	99	6.4	76	74	18	19	199	192	3.8
,	Vertical Bow	80	82	-2.8	67	64	13	10	160	156	2.6
Clinton	Bonus Gun	22	16	40.4	32	25	4	3	58	44	32.8
r	Muzzleloader	21	21	-1.6	32	32	11	9	64	62	2.7
,	Youth	13	15	-11.4	9	11	2	3	24	29	-16.3
1	Total	361	354	2.1	361	340	88	79	810	773	4.8
(	Gun	487	495	-1.6	664	697	184	174	1,335	1,367	-2.3
	Crossbow	388	418	-7.2	303	334	79	73	770	825	-6.7
١	Vertical Bow	168	191	-12.2	157	168	32	29	357	388	-8.1
Columbiana	Bonus Gun	119	74	60.8	188	140	55	37	362	251	44.4
1	Muzzleloader	74	72	2.8	179	160	40	37	293	269	8.8
,	Youth	47	53	-11.9	28	40	16	17	91	110	-17.3
1	Total	1,296	1,316	-1.5	1,548	1,560	413	373	3,257	3,248	0.3

			Bucks			oes	Butto	n Bucks	T	otal Harve	est
County	Season	2017	3-year average	Diff. (%)	2017	3-year average	2017	3-year average	2017	3-year average	Diff. (%)
	Gun	852	844	1.0	1,421	1,321	286	270	2,559	2,434	5.1
	Crossbow	835	777	7.5	707	613	134	118	1,676	1,508	11.2
	Vertical Bow	531	516	2.8	440	386	66	58	1,037	961	7.9
Coshocton	Bonus Gun	117	86	36.0	323	217	65	52	505	355	42.4
	Muzzleloader	146	150	-2.4	289	292	53	59	488	501	-2.7
	Youth	102	120	-15.0	87	80	33	34	222	234	-5.1
	Total	2,605	2,518	3.5	3,311	2,947	643	598	6,559	6,063	8.2
	Gun	246	232	5.9	293	272	72	81	611	585	4.4
	Crossbow	153	139	9.8	116	110	27	25	296	274	8.0
	Vertical Bow	55	66	-16.2	57	64	4	8	116	138	-15.9
Crawford	Bonus Gun	31	22	40.9	58	41	14	10	103	73	41.1
	Muzzleloader	13	14	-7.1	32	31	6	6	51	51	0.0
	Youth	16	16	0.0	14	15	5	5	35	35	-0.9
	Total	519	493	5.2	573	536	130	137	1,222	1,167	4.7
	Gun	22	16	37.5	27	27	3	6	52	48	7.6
	Crossbow	195	213	-8.3	408	378	71	67	674	658	2.5
	Vertical Bow	75	80	-5.9	190	166	35	32	300	278	7.9
Cuyahoga	Bonus Gun	0	1	-100	3	1	1	1	4	3	50.0
	Muzzleloader	2	1	200	0	1	0	1	2	2	-14.3
	Youth	0	0		0	0	0	0	0	0	
	Total	294	310	-5.2	629	574	110	106	1,033	990	4.3
	Gun	127	110	15.8	140	132	38	40	305	282	8.2
	Crossbow	79	83	-4.8	84	88	22	23	185	193	-4.3
	Vertical Bow	68	68	0.0	51	66	11	16	130	149	-12.9
Darke	Bonus Gun	16	10	54.8	21	13	11	6	48	29	67.4
	Muzzleloader	9	11	-20.6	18	18	1	4	28	33	-15.2
	Youth	11	10	6.5	9	9	4	3	24	22	7.5
	Total	313	296	5.9	328	328	90	92	731	716	2.1
	Gun	292	286	2.2	344	392	107	116	743	794	-6.4
	Crossbow	168	155	8.4	140	170	41	47	349	372	-6.1
	Vertical Bow	96	96	0.0	92	115	13	23	201	234	-14.1
Defiance	Bonus Gun	46	35	30.2	85	65	21	15	152	115	32.6
	Muzzleloader	27	22	24.6	43	51	21	16	91	89	2.2
	Youth	22	27	-17.5	18	24	4	10	44	61	-27.5
	Total	657	626	5.0	732	826	211	229	1,600	1,681	-4.8

			Bucks		D	oes	Butto	n Bucks	T	otal Harve	est
County	Season	2017	3-year average	Diff. (%)	2017	3-year average	2017	3-year average	2017	3-year average	Diff. (%)
	Gun	197	177	11.3	246	211	56	55	499	443	12.7
	Crossbow	235	237	-1.0	224	248	51	56	510	541	-5.8
	Vertical Bow	166	177	-6.0	198	223	33	35	397	435	-8.7
Delaware	Bonus Gun	31	22	38.8	36	31	11	10	78	63	23.2
	Muzzleloader	17	19	-10.5	37	43	8	9	62	71	-13.1
	Youth	6	14	-58.1	8	10	2	4	16	28	-42.9
	Total	659	652	1.1	753	773	162	170	1,574	1,595	-1.3
	Gun	108	89	21.3	124	104	39	30	271	223	21.5
	Crossbow	184	161	14.0	155	133	38	31	377	325	16.1
	Vertical Bow	53	57	-6.5	55	48	7	10	115	114	0.6
Erie	Bonus Gun	20	13	53.8	26	22	6	4	52	39	33.3
	Muzzleloader	9	7	22.7	25	18	8	5	42	30	40.0
	Youth	34	25	37.8	26	20	11	9	71	53	33.1
	Total	451	385	17.0	511	412	157	115	1,119	912	22.7
	Gun	325	294	10.4	363	361	84	82	772	738	4.7
	Crossbow	255	259	-1.5	199	188	41	42	495	489	1.3
	Vertical Bow	168	189	-11.3	147	152	25	25	340	366	-7.2
Fairfield	Bonus Gun	42	33	26.0	73	55	16	14	131	102	28.9
	Muzzleloader	46	37	23.2	97	84	13	14	156	135	15.6
	Youth	23	33	-29.6	23	23	13	8	59	64	-7.3
	Total	863	852	1.3	912	870	194	186	1,969	1,908	3.2
	Gun	66	60	9.4	63	53	11	11	140	124	12.6
	Crossbow	46	49	-5.5	26	25	6	7	78	81	-3.3
	Vertical Bow	44	42	5.6	22	20	7	5	73	67	9.5
Fayette	Bonus Gun	9	7	22.7	11	7	2	2	22	16	34.7
	Muzzleloader	14	8	68.0	15	9	0	0	29	18	61.1
	Youth	7	10	-30.0	1	3	1	2	9	15	-40.0
	Total	186	178	4.5	140	120	27	27	353	325	8.6
	Gun	59	54	9.3	75	78	20	16	154	148	4.1
	Crossbow	152	149	1.8	149	164	28	30	329	343	-4.1
	Vertical Bow	96	107	-10.3	107	130	15	16	218	253	-13.9
Franklin	Bonus Gun	6	6	-5.3	26	17	3	4	35	27	28.0
	Muzzleloader	6	7	-18.2	23	17	5	4	34	28	21.4
	Youth	5	4	36.4	4	4	2	1	11	8	32.0
	Total	328	331	-0.8	386	411	74	72	788	814	-3.2

Gun Crossbow Vertical Bov Fulton Bonus Gun Muzzleload	26	3-year average 150 108 54 17	Diff. (%)  -5.1  -2.2  6.7	2017 137 65	3-year average 153	2017	3-year average	2017 320	3-year average	Diff. (%)
Crossbow  Vertical Bov  Fulton  Bonus Gun	106 58 26 er 11	108 54	-2.2	65		41	45	320	3/18	-8 N
Vertical Box Fulton Bonus Gun	58 26 er 11	54			0.4				340	0.0
Fulton Bonus Gun	26 er 11		6.7	20	04	17	23	188	216	-12.8
1 2.33	er 11	17		39	57	13	12	110	123	-10.6
Muzzloload			56.0	28	20	6	7	60	44	36.4
Muzzieloau	7	9	17.9	22	16	8	7	41	32	29.5
Youth	,	12	-40.0	8	8	4	4	19	23	-17.4
Total	356	354	0.7	300	339	89	98	745	791	-5.8
Gun	498	527	-5.4	706	699	110	123	1,314	1,349	-2.6
Crossbow	299	312	-4.1	204	187	31	26	534	525	1.8
Vertical Boy	176	212	-17.0	125	122	15	18	316	352	-10.2
Gallia Bonus Gun	45	46	-2.2	100	95	21	15	166	157	6.0
Muzzleload	er 58	73	-20.5	105	150	13	17	176	239	-26.5
Youth	42	63	-33.7	24	34	10	8	76	105	-27.4
Total	1,124	1,242	-9.5	1,274	1,293	201	209	2,599	2,744	-5.3
Gun	216	197	9.5	249	240	72	71	537	508	5.7
Crossbow	296	311	-4.9	292	308	103	98	691	717	-3.6
Vertical Boy	121	143	-15.2	149	173	58	57	328	372	-11.9
<b>Geauga</b> Bonus Gun	38	32	17.5	58	51	14	14	110	97	13.0
Muzzleload	er 24	25	-5.3	58	62	20	18	102	106	-3.5
Youth	12	16	-26.5	11	15	6	5	29	36	-20.2
Total	717	734	-2.3	826	860	275	265	1,818	1,858	-2.2
Gun	87	86	1.2	122	107	20	24	229	217	5.4
Crossbow	130	139	-6.7	116	119	21	22	267	281	-4.9
Vertical Boy	, 80	97	-17.5	70	93	13	15	163	204	-20.2
Greene Bonus Gun	19	13	42.5	30	19	1	3	50	35	41.5
Muzzleload	er 17	16	8.5	28	26	6	7	51	49	4.1
Youth	9	9	0.0	3	7	1	2	13	17	-25.0
Total	343	363	-5.4	371	373	64	74	778	810	-3.9
Gun	761	738	3.2	1,022	1,005	220	219	2,003	1,961	2.1
Crossbow	628	604	4.0	461	411	99	76	1,188	1,091	8.9
Vertical Box	312	320	-2.5	241	236	40	36	593	592	0.1
Guernsey Bonus Gun	98	93	5.0	169	162	39	35	306	290	5.4
Muzzleload	er 115	114	1.2	303	267	47	52	465	433	7.5
Youth	76	98	-22.2	56	63	22	19	154	180	-14.3
Total	2,007	1,981	1.3	2,271	2,162	475	441	4,753	4,584	3.7

			Bucks		D	oes	Butto	n Bucks	Т	otal Harv	est
County	Season	2017	3-year average	Diff. (%)	2017	3-year average	2017	3-year average	2017	3-year average	Diff. (%)
	Gun	75	75	-0.4	88	103	27	21	190	199	-4.5
	Crossbow	329	331	-0.7	404	420	72	79	805	830	-3.0
	Vertical Bow	203	222	-8.4	284	336	52	63	539	621	-13.2
Hamilton	Bonus Gun	19	11	67.6	31	20	5	4	55	35	57.1
	Muzzleloader	9	11	-20.6	19	24	6	3	34	38	-11.3
	Youth	7	5	31.3	2	6	1	3	10	14	-26.8
	Total	646	660	-2.1	829	912	164	174	1,639	1,745	-6.1
	Gun	247	224	10.4	218	204	60	60	525	488	7.5
	Crossbow	163	169	-3.6	115	110	22	24	300	303	-1.0
	Vertical Bow	117	129	-9.1	97	102	11	16	225	247	-8.8
Hancock	Bonus Gun	36	24	47.9	29	25	9	6	74	55	33.7
	Muzzleloader	20	16	25.0	34	29	6	8	60	53	12.5
	Youth	20	23	-14.3	7	13	4	4	31	40	-23.1
	Total	608	590	3.1	506	487	114	121	1,228	1,197	2.6
	Gun	199	197	1.2	261	250	63	67	523	514	1.8
	Crossbow	124	119	4.5	109	124	27	31	260	273	-4.9
	Vertical Bow	98	97	0.7	99	108	28	28	225	234	-3.7
Hardin	Bonus Gun	43	27	57.3	46	33	20	12	109	72	52.1
	Muzzleloader	26	28	-6.0	58	59	17	13	101	100	1.3
	Youth	13	23	-44.3	7	14	8	7	28	45	-37.3
	Total	506	496	1.9	583	593	164	159	1,253	1,248	0.4
	Gun	537	584	-8.0	816	832	171	172	1,524	1,587	-4.0
	Crossbow	452	480	-5.9	355	330	54	54	861	864	-0.3
	Vertical Bow	215	257	-16.5	219	207	22	24	456	488	-6.6
Harrison	Bonus Gun	74	71	4.7	216	150	44	31	334	252	32.7
	Muzzleloader	97	101	-4.3	213	238	36	40	346	379	-8.8
	Youth	61	83	-26.5	42	43	17	14	120	140	-14.1
	Total	1,448	1,587	-8.8	1,880	1,817	346	337	3,674	3,742	-1.8
	Gun	158	156	1.1	169	161	43	43	370	360	2.8
	Crossbow	83	78	6.4	61	61	11	14	155	153	1.3
	Vertical Bow	47	47	0.7	45	43	7	10	99	100	-0.7
Henry	Bonus Gun	28	19	50.0	23	18	4	4	55	40	36.4
	Muzzleloader	7	8	-8.7	18	17	0	1	25	25	-1.3
	Youth	12	10	16.1	8	10	2	2	22	22	-1.5
	Total	337	320	5.2	329	313	67	75	733	708	3.5

			Bucks		D	oes	Butto	n Bucks	T	otal Harve	est
County	Season	2017	3-year average	Diff. (%)	2017	3-year average	2017	3-year average	2017	3-year average	Diff. (%)
	Gun	373	376	-0.7	567	565	128	128	1,068	1,068	0.0
	Crossbow	309	316	-2.1	283	292	72	71	664	679	-2.2
	Vertical Bow	193	222	-13.2	205	225	34	39	432	486	-11.2
Highland	Bonus Gun	56	45	25.4	113	91	21	17	190	153	24.5
	Muzzleloader	69	66	4.5	112	118	22	27	203	211	-3.8
	Youth	54	60	-10.5	36	40	5	8	95	108	-11.8
	Total	1,056	1,092	-3.3	1,325	1,341	287	292	2,668	2,725	-2.1
	Gun	577	568	1.5	651	697	139	150	1,367	1,416	-3.4
	Crossbow	452	468	-3.4	313	312	46	54	811	834	-2.7
	Vertical Bow	280	307	-8.8	190	208	20	28	490	544	-9.9
Hocking	Bonus Gun	69	61	13.7	112	103	18	21	199	185	7.6
	Muzzleloader	116	107	8.7	208	204	35	38	359	348	3.2
	Youth	44	56	-21.0	27	29	5	7	76	91	-16.8
	Total	1,546	1,575	-1.8	1,512	1,567	263	299	3,321	3,441	-3.5
	Gun	533	499	6.9	862	791	192	188	1,587	1,478	7.4
	Crossbow	559	513	9.0	463	441	88	82	1,110	1,036	7.1
	Vertical Bow	262	284	-7.6	320	317	39	39	621	640	-3.0
Holmes	Bonus Gun	86	62	39.5	217	133	39	28	342	223	53.4
	Muzzleloader	58	65	-11.2	172	172	48	38	278	275	1.0
	Youth	68	78	-12.4	38	54	19	26	125	158	-20.7
	Total	1,579	1,516	4.2	2,095	1,930	434	406	4,108	3,852	6.6
	Gun	397	366	8.4	584	557	165	152	1,146	1,075	6.6
	Crossbow	264	253	4.5	196	213	43	49	503	515	-2.3
	Vertical Bow	131	139	-5.8	131	140	19	24	281	303	-7.2
Huron	Bonus Gun	44	42	4.8	153	98	38	28	235	168	39.9
	Muzzleloader	34	33	3.0	64	72	23	22	121	127	-4.7
	Youth	24	36	-33.9	19	22	14	15	57	74	-23.0
	Total	902	876	3.0	1,167	1,117	308	294	2,377	2,287	4.0
	Gun	448	460	-2.5	640	612	134	121	1,222	1,192	2.5
	Crossbow	421	412	2.3	279	278	46	45	746	735	1.5
	Vertical Bow	286	299	-4.2	195	187	21	23	502	509	-1.3
Jackson	Bonus Gun	60	56	6.5	115	102	14	19	189	177	6.6
	Muzzleloader	77	82	-6.5	122	164	20	26	219	272	-19.6
	Youth	49	63	-22.2	27	34	11	13	87	110	-20.9
	Total	1,346	1,377	-2.3	1,389	1,390	249	249	2,984	3,016	-1.1

			Bucks		D	oes	Butto	n Bucks	Т	otal Harve	est
County	Season	2017	3-year average	Diff. (%)	2017	3-year average	2017	3-year average	2017	3-year average	Diff. (%)
	Gun	324	425	-23.7	427	528	79	93	830	1,046	-20.6
	Crossbow	195	304	-35.8	140	184	23	24	358	511	-30.0
	Vertical Bow	127	216	-41.2	117	126	16	12	260	354	-26.6
Jefferson	Bonus Gun	60	53	13.9	99	103	36	22	195	177	10.0
	Muzzleloader	47	65	-27.7	115	163	20	23	182	251	-27.4
	Youth	27	57	-52.6	27	27	8	9	62	92	-32.9
	Total	786	1,130	-30.4	933	1,141	184	184	1,903	2,455	-22.5
	Gun	709	668	6.1	996	963	254	254	1,959	1,885	3.9
	Crossbow	534	523	2.1	499	489	87	95	1,120	1,107	1.2
	Vertical Bow	309	359	-13.9	331	355	63	61	703	775	-9.3
Knox	Bonus Gun	110	74	49.3	218	146	53	35	381	254	49.8
	Muzzleloader	95	86	10.0	190	195	43	44	328	326	0.7
	Youth	73	75	-2.2	36	55	15	20	124	150	-17.3
	Total	1,849	1,801	2.7	2,286	2,220	523	518	4,658	4,539	2.6
	Gun	52	55	-4.9	89	85	22	24	163	163	-0.2
	Crossbow	183	188	-2.8	254	249	57	61	494	498	-0.8
	Vertical Bow	42	59	-28.4	89	101	14	16	145	176	-17.5
Lake	Bonus Gun	11	9	17.9	21	18	7	4	39	31	27.2
	Muzzleloader	12	10	20.0	17	23	2	3	31	36	-13.1
	Youth	3	4	-25.0	3	2	1	1	7	7	0.0
	Total	304	327	-7.1	476	481	103	109	883	917	-3.7
	Gun	368	393	-6.4	466	448	64	63	898	904	-0.7
	Crossbow	219	245	-10.5	119	130	28	18	366	393	-6.8
	Vertical Bow	178	197	-9.5	91	108	10	12	279	317	-11.9
Lawrence	Bonus Gun	38	46	-16.8	50	63	3	9	91	117	-22.2
	Muzzleloader	19	48	-60.4	57	79	7	8	83	135	-38.7
	Youth	34	42	-19.0	20	22	3	6	57	70	-18.6
	Total	859	974	-11.8	808	855	117	118	1,784	1,946	-8.3
	Gun	655	612	7.1	926	926	205	215	1,786	1,753	1.9
	Crossbow	744	747	-0.4	627	668	125	134	1,496	1,549	-3.4
	Vertical Bow	407	442	-8.0	392	475	54	67	853	984	-13.3
Licking	Bonus Gun	107	73	45.9	190	147	43	37	340	257	32.3
	Muzzleloader	94	100	-6.0	236	236	34	39	364	375	-3.0
	Youth	69	81	-15.2	45	51	13	17	127	149	-14.8
	Total	2,092	2,073	0.9	2,443	2,530	474	512	5,009	5,115	-2.1

**APPENDIX 1**COUNTY HARVEST SUMMARIES

			Bucks		D	oes	Butto	n Bucks	Т	otal Harve	est
County	Season	2017	3-year average	Diff. (%)	2017	3-year average	2017	3-year average	2017	3-year average	Diff. (%)
	Gun	285	270	5.6	375	347	90	101	750	718	4.5
	Crossbow	243	231	5.3	263	260	68	67	574	558	2.9
	Vertical Bow	160	184	-13.2	182	203	30	31	372	418	-11.0
Logan	Bonus Gun	57	34	69.3	91	58	21	14	169	105	61.0
	Muzzleloader	34	37	-7.3	79	83	14	16	127	136	-6.4
	Youth	27	40	-31.9	13	19	8	10	48	68	-29.4
	Total	815	800	1.9	1,008	976	232	239	2,055	2,015	2.0
	Gun	239	232	3.0	350	339	108	101	697	672	3.7
	Crossbow	364	410	-11.3	346	435	109	123	819	968	-15.4
	Vertical Bow	118	151	-21.7	185	217	35	39	338	407	-16.9
Lorain	Bonus Gun	59	47	24.6	115	86	26	22	200	156	28.5
	Muzzleloader	36	33	8.0	84	74	16	20	136	127	6.8
	Youth	19	27	-29.6	15	18	4	7	38	52	-26.9
	Total	842	910	-7.5	1,115	1,185	298	314	2,255	2,408	-6.4
	Gun	39	44	-12.0	60	58	20	18	119	120	-1.1
	Crossbow	143	138	3.4	191	196	58	58	392	393	-0.3
	Vertical Bow	69	67	3.5	99	96	17	23	185	185	-0.2
Lucas	Bonus Gun	6	7	-10.0	6	8	1	2	13	17	-22.0
	Muzzleloader	9	8	17.4	18	12	1	3	28	22	27.3
	Youth	4	3	33.3	2	5	1	2	7	9	-25.0
	Total	272	271	0.5	378	378	98	105	748	754	-0.8
	Gun	90	77	16.4	78	72	16	14	184	163	12.9
	Crossbow	73	81	-9.9	48	45	11	12	132	138	-4.1
	Vertical Bow	57	61	-6.0	39	46	5	7	101	113	-10.6
Madison	Bonus Gun	16	10	60.0	28	17	8	5	52	32	62.5
	Muzzleloader	7	10	-30.0	12	14	2	3	21	27	-21.3
	Youth	7	9	-22.2	6	6	3	4	16	19	-14.3
	Total	254	251	1.1	212	201	45	44	511	497	2.9
	Gun	251	205	22.6	304	300	91	94	646	599	7.9
	Crossbow	331	330	0.4	293	281	81	88	705	698	1.0
	Vertical Bow	126	127	-0.5	142	138	25	34	293	298	-1.8
Mahoning	Bonus Gun	54	41	32.8	107	81	33	22	194	144	34.7
	Muzzleloader	38	36	4.6	86	76	14	15	138	127	8.4
	Youth	18	21	-12.9	10	16	6	9	34	46	-25.5
	Total	824	766	7.6	956	904	252	264	2,032	1,933	5.1

Marion         Bonus Gun         28         20         37.7         43         32         8         6         79         59         33.9           Muzzleloader         20         23         -14.3         26         25         3         5         49         53         -8.1           Youth         16         16         10         0         2         4         23         30         -23.3           Total         407         391         4.0         406         409         80         90         893         890         0.3           Gun         244         216         12.8         283         280         92         93         619         589         5.0           Crossbow         352         363         -3.1         294         315         79         84         725         762         4.9           Medina         Bonus Gun         61         45         34.6         101         76         25         18         187         139         34.5           Medina         14         18         -20.8         9         13         4         5         27         36         -24.3           M				Bucks		0	oes	Butto	n Bucks	Т	otal Harve	est
Marion	County	Season	2017	-		2017		2017	-	2017	-	
Marion         Vertical Bow         65         69         -5.8         50         67         10         12         125         147         -15.2           Marion         Bonus Gun         28         20         37.7         43         32         8         6         79         59         33.9           Muzieloader         20         23         -14.3         26         25         3         5         49         53         -8.1           Youth         16         16         10         5         10         2         4         23         30         -23.3           Gun         244         216         12.8         283         280         90         893         890         0.3           Crossbow         352         363         -3.1         294         315         79         84         725         762         -4.9           Medina         Bonus Gun         61         45         34.6         101         76         25         18         187         199         34-3         34-5           Medina         Bonus Gun         61         45         34.6         101         76         25         18         1		Gun	183	166	10.0	202	188	43	43	428	398	7.5
Marion   Bonus Gun   28   20   37.7   43   32   8   6   79   59   33.9     Muzzleloader   20   23   -14.3   26   25   3   5   49   53   -8.1     Youth   16   16   0.0   5   10   2   4   23   30   -23.3     Total   407   391   4.0   406   409   80   90   893   890   0.3     Gun   244   216   12.8   283   280   92   93   619   589   5.0     Crossbow   352   363   -3.1   294   315   79   84   77.5   762   -4.9     Vertical Bow   154   153   0.7   140   151   28   28   322   333   -3.2     Medina   Bonus Gun   61   45   34.6   101   76   25   18   187   139   34.5     Total   868   834   4.1   906   914   238   250   2,012   1,998   0.7     Wertical Bow   477   570   -16.3   722   721   120   121   1,319   1,412   -6.6     Crossbow   435   453   -4.0   281   284   35   37   751   774   -3.0     Vertical Bow   235   282   -16.8   162   179   20   19   417   481   -13.2     Meigs   Bonus Gun   64   69   -6.8   118   114   17   23   199   205   -3.1     Muzzleloader   94   105   -10.5   195   225   21   31   310   362   -14.3     Youth   67   90   25.6   31   42   6   10   104   142   26.9     Total   1,375   1,578   -12.8   1,520   1,575   220   242   3,115   3,394   -8.2      Mercer   Bouns Gun   18   11   63.6   20   15   9   6   47   32   45.4     Muzzleloader   11   9   22.2   14   13   3   2   28   25   13.5     Youth   5   12   5.83   8   13   3   7   16   32   245     Muzzleloader   11   9   22.2   14   13   3   2   28   25   13.5     Total   283   263   7.7   305   297   89   87   677   647   4.6     Gun   118   96   22.9   103   101   30   30   251   227   10.4     Miami   Bonus Gun   15   13   18.4   24   18   15   9   54   39   38.5     Miami   Bonus Gun   15   13   18.4   24   18   15   9   54   39   38.5     Miami   Bonus Gun   15   13   18.4   24   18   15   9   54   39   38.5     Miami   Bonus Gun   15   13   18.4   24   18   15   9   54   39   38.5     Miami   Bonus Gun   15   13   18.4   24   18   15   9   54   39   38.5     Miami   Bonus Gun   15   13   18.4   24   18   15   9   54   39   38.5		Crossbow	89	92	-3.3	76	81	13	19	178	192	-7.3
Muzzleloader         20         23         -14.3         26         25         3         5         49         53         -8.1           Youth         16         16         10         0         2         4         23         30         -23.3           Total         407         391         4.0         406         409         80         90         893         890         0.3           Gun         244         216         12.8         283         280         92         93         619         589         5.0           Crossbow         352         363         -3.1         294         315         79         84         725         762         -4.9           Medina         Bonus Gun         61         45         34.6         101         76         25         18         187         139         34.5           Muzzleloader         32         27         17.1         65         67         7         18         104         112         -7.4           Youth         14         18         -20.8         9         13         4         5         27         736         -24.3		Vertical Bow	65	69	-5.8	50	67	10	12	125	147	-15.2
Youth         16         16         0.0         5         10         2         4         23         30         -23.3           Total         407         391         4.0         406         409         80         90         893         890         0.3           Gun         244         216         12.8         283         280         92         93         619         589         5.0           Crossbow         352         363         -3.1         294         315         79         84         725         762         -4.9           Medina         Bonus Gun         61         45         34.6         101         76         25         18         187         139         34.5           Muzzleloader         32         27         17.1         65         67         7         18         104         112         -7.4           Youth         14         18         -20.8         9         13         4         5         27         36         -24.3           Total         868         834         4.1         906         914         238         250         20.12         1.998         0.7	Marion	Bonus Gun	28	20	37.7	43	32	8	6	79	59	33.9
Total		Muzzleloader	20	23	-14.3	26	25	3	5	49	53	-8.1
Medina   Crossbow   352   363   -3.1   294   315   79   84   725   762   -4.9		Youth	16	16	0.0	5	10	2	4	23	30	-23.3
Medina         Crossbow         352         363         -3.1         294         315         79         84         725         762         -4.9           Vertical Bow         154         153         0.7         140         151         28         28         322         333         -3.2           Muzzleloader         32         27         17.1         65         67         7         18         104         112         -7.4           Youth         14         18         -20.8         9         13         4         5         27         36         -24.3           Total         868         834         4.1         906         914         238         250         2,012         1,998         0.7           Crossbow         435         453         -4.0         281         284         35         37         751         774         -3.0           Meigs         Bonus Gun         64         69         -6.8         118         114         17         23         199         205         -3.1           Meigs         Bonus Gun         64         69         -6.8         118         114         17         23         199 </td <th></th> <td>Total</td> <td>407</td> <td>391</td> <td>4.0</td> <td>406</td> <td>409</td> <td>80</td> <td>90</td> <td>893</td> <td>890</td> <td>0.3</td>		Total	407	391	4.0	406	409	80	90	893	890	0.3
Medina         Vertical Bow         154         153         0.7         140         151         28         28         322         333         -3.2           Medina         Bonus Gun         61         45         34.6         101         76         25         18         187         139         34.5           Muzzleloader         32         27         17.1         65         67         7         18         104         112         -7.4           Youth         14         18         -20.8         9         13         4         5         27         36         -24.3           Total         868         834         4.1         906         914         238         250         2,012         1,998         0.7           Crossbow         435         453         -4.0         281         284         35         37         751         774         -3.0           Vertical Bow         235         282         -16.8         162         179         20         19         417         481         -13.2           Meigs         Bonus Gun         64         69         -6.8         118         114         17         23 <td< th=""><th></th><th>Gun</th><th>244</th><th>216</th><th>12.8</th><th>283</th><th>280</th><th>92</th><th>93</th><th>619</th><th>589</th><th>5.0</th></td<>		Gun	244	216	12.8	283	280	92	93	619	589	5.0
Medina         Bonus Gun         61         45         34.6         101         76         25         18         187         139         34.5           Muzzleloader         32         27         17.1         65         67         7         18         104         112         -7.4           Youth         14         18         -20.8         9         13         4         5         27         36         -24.3           Total         868         834         4.1         906         914         238         250         2,012         1,998         0.7           Crossbow         435         453         -4.0         281         284         35         37         751         774         -3.0           Vertical Bow         235         282         -16.8         162         179         20         19         417         481         -13.2           Meigs         Bonus Gun         64         69         -6.8         118         114         17         23         199         205         -3.1           Meigs         Muzzleloader         94         105         -10.5         195         225         21         31 <th< td=""><th></th><td>Crossbow</td><td>352</td><td>363</td><td>-3.1</td><td>294</td><td>315</td><td>79</td><td>84</td><td>725</td><td>762</td><td>-4.9</td></th<>		Crossbow	352	363	-3.1	294	315	79	84	725	762	-4.9
Muzzleloader         32         27         17.1         65         67         7         18         104         112         -7.4           Youth         14         18         -20.8         9         13         4         5         27         36         -24.3           Total         868         834         4.1         906         914         238         250         2,012         1,998         0.7           Crossbow         435         453         -4.0         281         284         35         37         751         774         -3.0           Vertical Bow         235         282         -16.8         162         179         20         19         417         481         -13.2           Meigs         Bonus Gun         64         69         -6.8         118         114         17         23         199         205         -3.1           Muzzleloader         94         105         -10.5         195         225         21         31         310         362         -14.3           Youth         67         90         -25.6         31         42         6         10         104         142         -6.9 <th></th> <td>Vertical Bow</td> <td>154</td> <td>153</td> <td>0.7</td> <td>140</td> <td>151</td> <td>28</td> <td>28</td> <td>322</td> <td>333</td> <td>-3.2</td>		Vertical Bow	154	153	0.7	140	151	28	28	322	333	-3.2
Youth         14         18         -20.8         9         13         4         5         27         36         -24.3           Total         868         834         4.1         906         914         238         250         2,012         1,998         0,7           Merical Bow         477         570         -16.3         722         721         120         121         1,319         1,412         -6.6           Crossbow         435         453         -4.0         281         284         35         37         751         774         -3.0           Vertical Bow         235         282         -16.8         162         179         20         19         417         481         -13.2           Muzzleloader         94         105         -10.5         195         225         21         31         310         362         -14.3           Youth         67         90         -25.6         31         42         6         10         104         142         -26.9           Total         1,375         1,578         -12.8         1,520         1,575         220         242         3,115         3,394	Medina	Bonus Gun	61	45	34.6	101	76	25	18	187	139	34.5
Total   868   834   4.1   906   914   238   250   2,012   1,998   0.7		Muzzleloader	32	27	17.1	65	67	7	18	104	112	-7.4
Meigs         Gun         477         570         -16.3         722         721         120         121         1,319         1,412         -6.6           Crossbow         435         453         -4.0         281         284         35         37         751         774         -3.0           Vertical Bow         235         282         -16.8         162         179         20         19         417         481         -13.2           Muzzleloader         94         105         -10.5         195         225         21         31         310         362         -14.3           Youth         67         90         -25.6         31         42         6         10         104         142         -26.9           Total         1,375         1,578         -12.8         1,520         1,575         220         242         3,115         3,394         -8.2           Mercer         Gun         127         109         16.5         137         123         46         37         310         269         15.2           Crossbow         77         72         6.5         78         75         17         21         172		Youth	14	18	-20.8	9	13	4	5	27	36	-24.3
Meigs         Crossbow         435         453         -4.0         281         284         35         37         751         774         -3.0           Meigs         Bonus Gun         64         69         -6.8         118         114         17         23         199         205         -3.1           Muzzleloader         94         105         -10.5         195         225         21         31         310         362         -14.3           Youth         67         90         -25.6         31         42         6         10         104         142         -26.9           Total         1,375         1,578         -12.8         1,520         1,575         220         242         3,115         3,394         -8.2           Crossbow         77         72         6.5         78         75         17         21         172         168         2.6           Vertical Bow         43         48         -9.8         46         57         11         14         100         118         -15.3           Mercer         Bonus Gun         18         11         63.6         20         15         9         6		Total	868	834	4.1	906	914	238	250	2,012	1,998	0.7
Meigs         Vertical Bow         235         282         -16.8         162         179         20         19         417         481         -13.2           Meigs         Bonus Gun         64         69         -6.8         118         114         17         23         199         205         -3.1           Muzzleloader         94         105         -10.5         195         225         21         31         310         362         -14.3           Youth         67         90         -25.6         31         42         6         10         104         142         -26.9           Total         1,375         1,578         -12.8         1,520         1,575         220         242         3,115         3,394         -8.2           Gun         127         109         16.5         137         123         46         37         310         269         15.2           Crossbow         77         72         6.5         78         75         17         21         172         168         2.6           Mercer         Bonus Gun         18         11         63.6         20         15         9         6		Gun	477	570	-16.3	722	721	120	121	1,319	1,412	-6.6
Meigs         Bonus Gun         64         69         -6.8         118         114         17         23         199         205         -3.1           Muzzleloader         94         105         -10.5         195         225         21         31         310         362         -14.3           Youth         67         90         -25.6         31         42         6         10         104         142         -26.9           Total         1,375         1,578         -12.8         1,520         1,575         220         242         3,115         3,394         -8.2           Crossbow         77         72         6.5         78         75         17         21         172         168         2.6           Vertical Bow         43         48         -9.8         46         57         11         14         100         118         -15.3           Mercer         Bonus Gun         18         11         63.6         20         15         9         6         47         32         45.4           Muzzleloader         11         9         22.2         14         13         3         2         28         25 </td <th></th> <td>Crossbow</td> <td>435</td> <td>453</td> <td>-4.0</td> <td>281</td> <td>284</td> <td>35</td> <td>37</td> <td>751</td> <td>774</td> <td>-3.0</td>		Crossbow	435	453	-4.0	281	284	35	37	751	774	-3.0
Muzzleloader         94         105         -10.5         195         225         21         31         310         362         -14.3           Youth         67         90         -25.6         31         42         6         10         104         142         -26.9           Total         1,375         1,578         -12.8         1,520         1,575         220         242         3,115         3,394         -8.2           Mercer         Gun         127         109         16.5         137         123         46         37         310         269         15.2           Crossbow         77         72         6.5         78         75         17         21         172         168         2.6           Vertical Bow         43         48         -9.8         46         57         11         14         100         118         -15.3           Muzzleloader         11         9         22.2         14         13         3         2         28         25         13.5           Youth         5         12         -58.3         8         13         3         7         16         32         -49.		Vertical Bow	235	282	-16.8	162	179	20	19	417	481	-13.2
Youth         67         90         -25.6         31         42         6         10         104         142         -26.9           Total         1,375         1,578         -12.8         1,520         1,575         220         242         3,115         3,394         -8.2           Mercer         Gun         127         109         16.5         137         123         46         37         310         269         15.2           Crossbow         77         72         6.5         78         75         17         21         172         168         2.6           Vertical Bow         43         48         -9.8         46         57         11         14         100         118         -15.3           Bonus Gun         18         11         63.6         20         15         9         6         47         32         45.4           Muzzleloader         11         9         22.2         14         13         3         2         28         25         13.5           Youth         5         12         -58.3         8         13         3         7         16         32         -49.	Meigs	Bonus Gun	64	69	-6.8	118	114	17	23	199	205	-3.1
Mercer         Total         1,375         1,578         -12.8         1,520         1,575         220         242         3,115         3,394         -8.2           Mercer         Gun         127         109         16.5         137         123         46         37         310         269         15.2           Crossbow         77         72         6.5         78         75         17         21         172         168         2.6           Vertical Bow         43         48         -9.8         46         57         11         14         100         118         -15.3           Bonus Gun         18         11         63.6         20         15         9         6         47         32         45.4           Muzzleloader         11         9         22.2         14         13         3         2         28         25         13.5           Youth         5         12         -58.3         8         13         3         7         16         32         -49.5           Total         283         263         7.7         305         297         89         87         677         647         4		Muzzleloader	94	105	-10.5	195	225	21	31	310	362	-14.3
Mercer         Gun         127         109         16.5         137         123         46         37         310         269         15.2           Crossbow         77         72         6.5         78         75         17         21         172         168         2.6           Vertical Bow         43         48         -9.8         46         57         11         14         100         118         -15.3           Bonus Gun         18         11         63.6         20         15         9         6         47         32         45.4           Muzzleloader         11         9         22.2         14         13         3         2         28         25         13.5           Youth         5         12         -58.3         8         13         3         7         16         32         -49.5           Total         283         263         7.7         305         297         89         87         677         647         4.6           Gun         118         96         22.9         103         101         30         30         251         227         10.4           Cro		Youth	67	90	-25.6	31	42	6	10	104	142	-26.9
Mercer         Crossbow         77         72         6.5         78         75         17         21         172         168         2.6           Vertical Bow         43         48         -9.8         46         57         11         14         100         118         -15.3           Bonus Gun         18         11         63.6         20         15         9         6         47         32         45.4           Muzzleloader         11         9         22.2         14         13         3         2         28         25         13.5           Youth         5         12         -58.3         8         13         3         7         16         32         -49.5           Total         283         263         7.7         305         297         89         87         677         647         4.6           Gun         118         96         22.9         103         101         30         30         251         227         10.4           Crossbow         131         124         5.9         115         134         15         23         261         281         -7.1 <th< td=""><th></th><td>Total</td><td>1,375</td><td>1,578</td><td>-12.8</td><td>1,520</td><td>1,575</td><td>220</td><td>242</td><td>3,115</td><td>3,394</td><td>-8.2</td></th<>		Total	1,375	1,578	-12.8	1,520	1,575	220	242	3,115	3,394	-8.2
Mercer         Vertical Bow         43         48         -9.8         46         57         11         14         100         118         -15.3           Bonus Gun         18         11         63.6         20         15         9         6         47         32         45.4           Muzzleloader         11         9         22.2         14         13         3         2         28         25         13.5           Youth         5         12         -58.3         8         13         3         7         16         32         -49.5           Total         283         263         7.7         305         297         89         87         677         647         4.6           Gun         118         96         22.9         103         101         30         30         251         227         10.4           Crossbow         131         124         5.9         115         134         15         23         261         281         -7.1           Vertical Bow         74         82         -9.4         69         85         10         16         153         182         -16.1		Gun	127	109	16.5	137	123	46	37	310	269	15.2
Mercer         Bonus Gun         18         11         63.6         20         15         9         6         47         32         45.4           Muzzleloader         11         9         22.2         14         13         3         2         28         25         13.5           Youth         5         12         -58.3         8         13         3         7         16         32         -49.5           Total         283         263         7.7         305         297         89         87         677         647         4.6           Gun         118         96         22.9         103         101         30         30         251         227         10.4           Crossbow         131         124         5.9         115         134         15         23         261         281         -7.1           Vertical Bow         74         82         -9.4         69         85         10         16         153         182         -16.1           Miami         Bonus Gun         15         13         18.4         24         18         15         9         54         39         38.5<		Crossbow	77	72	6.5	78	75	17	21	172	168	2.6
Muzzleloader 11 9 22.2 14 13 3 2 28 25 13.5  Youth 5 12 -58.3 8 13 3 7 16 32 -49.5  Total 283 263 7.7 305 297 89 87 677 647 4.6  Gun 118 96 22.9 103 101 30 30 251 227 10.4  Crossbow 131 124 5.9 115 134 15 23 261 281 -7.1  Vertical Bow 74 82 -9.4 69 85 10 16 153 182 -16.1  Bonus Gun 15 13 18.4 24 18 15 9 54 39 38.5  Muzzleloader 12 11 5.9 30 23 3 4 45 38 17.4		Vertical Bow	43	48	-9.8	46	57	11	14	100	118	-15.3
Youth         5         12         -58.3         8         13         3         7         16         32         -49.5           Total         283         263         7.7         305         297         89         87         677         647         4.6           Miami         118         96         22.9         103         101         30         30         251         227         10.4           Crossbow         131         124         5.9         115         134         15         23         261         281         -7.1           Vertical Bow         74         82         -9.4         69         85         10         16         153         182         -16.1           Miami         Bonus Gun         15         13         18.4         24         18         15         9         54         39         38.5           Muzzleloader         12         11         5.9         30         23         3         4         45         38         17.4	Mercer	Bonus Gun	18	11	63.6	20	15	9	6	47	32	45.4
Total         283         263         7.7         305         297         89         87         677         647         4.6           Gun         118         96         22.9         103         101         30         30         251         227         10.4           Crossbow         131         124         5.9         115         134         15         23         261         281         -7.1           Vertical Bow         74         82         -9.4         69         85         10         16         153         182         -16.1           Bonus Gun         15         13         18.4         24         18         15         9         54         39         38.5           Muzzleloader         12         11         5.9         30         23         3         4         45         38         17.4		Muzzleloader	11	9	22.2	14	13	3	2	28	25	13.5
Gun       118       96       22.9       103       101       30       30       251       227       10.4         Crossbow       131       124       5.9       115       134       15       23       261       281       -7.1         Vertical Bow       74       82       -9.4       69       85       10       16       153       182       -16.1         Bonus Gun       15       13       18.4       24       18       15       9       54       39       38.5         Muzzleloader       12       11       5.9       30       23       3       4       45       38       17.4		Youth	5	12	-58.3	8	13	3	7	16	32	-49.5
Crossbow       131       124       5.9       115       134       15       23       261       281       -7.1         Vertical Bow       74       82       -9.4       69       85       10       16       153       182       -16.1         Bonus Gun       15       13       18.4       24       18       15       9       54       39       38.5         Muzzleloader       12       11       5.9       30       23       3       4       45       38       17.4		Total	283	263	7.7	305	297	89	87	677	647	4.6
Miami         Vertical Bow         74         82         -9.4         69         85         10         16         153         182         -16.1           Bonus Gun         15         13         18.4         24         18         15         9         54         39         38.5           Muzzleloader         12         11         5.9         30         23         3         4         45         38         17.4		Gun	118	96	22.9	103	101	30	30	251	227	10.4
Miami         Bonus Gun         15         13         18.4         24         18         15         9         54         39         38.5           Muzzleloader         12         11         5.9         30         23         3         4         45         38         17.4		Crossbow	131	124	5.9	115	134	15	23	261	281	-7.1
Muzzleloader 12 11 5.9 30 23 3 4 45 38 17.4		Vertical Bow	74	82	-9.4	69	85	10	16	153	182	-16.1
	Miami	Bonus Gun	15	13	18.4	24	18	15	9	54	39	38.5
Youth 14 14 0.0 1 7 1 2 16 23 -31.4		Muzzleloader	12	11	5.9	30	23	3	4	45	38	17.4
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		Youth	14	14	0.0	1	7	1	2	16	23	-31.4
Total 368 344 7.1 345 370 74 84 787 798 -1.4		Total	368	344	7.1	345	370	74	84	787	798	-1.4

County	Season	Bucks			_	oes	53110	Button Bucks Total Harvest			
	Season	2017	3-year average	Diff. (%)	2017	3-year average	2017	3-year average	2017	3-year average	Diff. (%)
G	Gun	542	511	6.0	660	617	126	130	1,328	1,258	5.5
С	Crossbow	328	337	-2.8	185	177	21	28	534	542	-1.5
V	/ertical Bow	122	132	-7.6	68	70	9	12	199	214	-6.9
Monroe B	Bonus Gun	68	57	19.3	125	100	13	16	206	173	19.3
	Muzzleloader	67	74	-9.0	168	187	20	25	255	285	-10.5
Y	outh/	45	59	-23.3	30	37	8	12	83	108	-22.9
Т	Total	1,177	1,176	0.1	1,243	1,196	198	223	2,618	2,596	0.9
G	Gun	69	57	21.1	66	56	22	16	157	129	21.4
С	Crossbow	138	120	15.0	126	126	25	28	289	274	5.3
V	/ertical Bow	58	68	-14.7	99	105	29	23	186	196	-4.9
Montgomery B	Bonus Gun	15	9	73.1	18	12	2	1	35	22	61.5
	Muzzleloader	9	10	-6.9	19	18	1	2	29	29	0.0
Y	outh/	3	3	-10.0	1	1	1	1	5	5	-6.2
T	Total	292	267	9.4	332	320	80	73	704	660	6.7
G	Gun	497	491	1.2	802	710	154	148	1,453	1,350	7.7
С	Crossbow	381	358	6.4	260	231	46	42	687	630	9.0
V	/ertical Bow	261	270	-3.2	142	149	24	23	427	442	-3.3
<b>Morgan</b> B	Bonus Gun	64	57	11.6	129	102	19	20	212	180	18.0
N	Muzzleloader	124	106	16.6	220	215	22	35	366	356	2.8
Y	outh/	48	65	-25.8	26	39	6	11	80	115	-30.2
Т	Total	1,397	1,364	2.4	1,603	1,472	278	286	3,278	3,122	5.0
G	Gun	258	239	7.8	284	290	112	92	654	621	5.3
С	Crossbow	213	204	4.6	154	153	39	37	406	393	3.2
V	/ertical Bow	119	119	0.0	80	95	24	26	223	239	-6.8
Morrow	Bonus Gun	33	28	16.5	74	49	16	11	123	88	39.8
N	Muzzleloader	29	27	8.7	53	56	12	10	94	93	1.4
Y	outh/	16	20	-21.3	12	14	4	6	32	41	-21.3
Т	Total .	672	642	4.7	663	663	209	184	1,544	1,489	3.7
G	Gun	775	795	-2.5	1,266	1,185	275	257	2,316	2,237	3.5
С	Crossbow	662	634	4.4	420	398	84	74	1,166	1,106	5.5
V	/ertical Bow	433	442	-2.1	275	291	34	33	742	766	-3.2
Muskingum B	Bonus Gun	113	93	21.5	210	174	40	34	363	301	20.6
N	Muzzleloader	129	132	-2.3	286	296	66	61	481	489	-1.6
Y	outh/	81	94	-13.5	73	65	9	16	163	175	-6.9
T	Гotal	2,203	2,205	-0.1	2,558	2,435	513	480	5,274	5,119	3.0

			Bucks			oes	Butto	n Bucks	Т	otal Harve	est
County	Season	2017	3-year average	Diff. (%)	2017	3-year average	2017	3-year average	2017	3-year average	Diff. (%)
	Gun	513	514	-0.3	730	677	140	137	1,383	1,329	4.1
	Crossbow	422	382	10.5	273	259	47	47	742	688	7.9
	Vertical Bow	205	201	1.8	117	121	22	18	344	340	1.1
Noble	Bonus Gun	50	52	-3.2	126	104	35	28	211	184	14.9
	Muzzleloader	80	79	1.3	157	168	28	34	265	282	-5.9
	Youth	51	66	-22.3	18	30	7	7	76	103	-26.0
	Total	1,327	1,306	1.6	1,426	1,372	283	275	3,036	2,954	2.8
	Gun	48	43	12.5	61	50	11	14	120	107	11.8
	Crossbow	99	88	12.9	98	95	24	24	221	206	7.3
	Vertical Bow	21	27	-23.2	26	25	5	9	52	62	-15.7
Ottawa	Bonus Gun	12	9	38.5	19	13	7	3	38	25	50.0
	Muzzleloader	6	8	-21.7	20	17	1	2	27	27	1.3
	Youth	5	7	-31.8	11	9	3	3	19	19	0.0
	Total	193	184	4.9	238	213	51	55	482	452	6.6
	Gun	159	162	-1.6	228	240	55	61	442	463	-4.6
	Crossbow	125	109	14.3	87	98	14	22	226	229	-1.5
	Vertical Bow	69	69	-0.5	59	66	8	14	136	150	-9.1
Paulding	Bonus Gun	38	24	60.6	62	36	13	11	113	70	60.7
	Muzzleloader	24	16	46.9	39	30	6	6	69	53	31.0
	Youth	17	19	-8.9	11	17	4	6	32	42	-23.2
	Total	434	402	8.0	488	490	100	122	1,022	1,013	0.9
	Gun	482	485	-0.6	653	635	141	138	1,276	1,257	1.5
	Crossbow	361	363	-0.6	186	200	58	49	605	612	-1.1
	Vertical Bow	179	216	-17.3	136	139	21	21	336	376	-10.7
Perry	Bonus Gun	73	60	21.0	121	107	19	21	213	189	12.7
	Muzzleloader	70	72	-2.8	142	146	28	30	240	247	-3.0
	Youth	52	66	-20.8	25	29	11	11	88	106	-16.7
	Total	1,219	1,269	-4.0	1,270	1,266	280	272	2,769	2,808	-1.4
	Gun	148	138	7.2	161	150	32	30	341	319	7.0
	Crossbow	105	97	7.9	73	68	11	14	189	179	5.6
	Vertical Bow	73	75	-2.2	49	58	10	9	132	142	-6.8
Pickaway	Bonus Gun	22	16	37.5	32	27	8	5	62	47	31.0
	Muzzleloader	24	22	10.8	28	27	3	4	55	53	3.8
	Youth	20	19	3.4	8	10	2	3	30	33	-8.2
	Total	396	371	6.6	359	345	67	67	822	783	5.0

		Bucks			D	oes	Butto	n Bucks	T	otal Harve	est
County	Season	2017	3-year average	Diff. (%)	2017	3-year average	2017	3-year average	2017	3-year average	Diff. (%)
	Gun	286	318	-10.1	401	422	72	82	759	822	-7.7
	Crossbow	302	315	-4.0	173	208	47	39	522	562	-7.1
	Vertical Bow	167	215	-22.3	116	138	22	18	305	370	-17.6
Pike	Bonus Gun	33	35	-6.6	72	74	9	10	114	119	-4.5
	Muzzleloader	60	59	1.1	84	95	24	17	168	171	-1.8
	Youth	28	42	-33.3	19	26	11	7	58	75	-23.0
	Total	879	991	-11.3	869	967	186	174	1,934	2,133	-9.3
	Gun	245	221	10.9	238	258	74	77	557	556	0.1
	Crossbow	381	382	-0.3	367	378	102	102	850	862	-1.4
	Vertical Bow	129	141	-8.5	182	189	38	40	349	369	-5.5
Portage	Bonus Gun	63	42	48.8	103	78	34	21	200	141	41.5
	Muzzleloader	29	25	14.5	66	70	17	16	112	112	0.3
	Youth	8	24	-66.2	11	24	1	4	20	52	-61.5
	Total	927	883	5.0	1,066	1,067	296	277	2,289	2,226	2.8
	Gun	121	108	12.0	139	132	37	32	297	272	9.2
	Crossbow	146	149	-2.2	122	115	27	26	295	291	1.4
	Vertical Bow	87	97	-10.3	75	88	25	20	187	205	-8.9
Preble	Bonus Gun	31	18	72.2	42	30	9	6	82	54	52.8
	Muzzleloader	17	16	4.1	40	39	12	10	69	65	6.7
	Youth	14	16	-12.5	11	11	3	4	28	31	-9.7
	Total	421	409	3.0	434	420	114	98	969	927	4.5
	Gun	157	127	23.6	160	145	41	40	358	312	14.7
	Crossbow	117	95	23.6	68	78	30	28	215	201	7.0
	Vertical Bow	58	63	-7.4	56	55	3	9	117	127	-7.9
Putnam	Bonus Gun	10	10	0.0	17	17	7	6	34	33	4.1
	Muzzleloader	8	6	26.3	9	10	4	3	21	19	8.6
	Youth	16	18	-11.1	10	11	1	4	27	33	-18.2
	Total	373	322	15.7	322	319	86	90	781	731	6.8
	Gun	527	464	13.5	649	624	166	176	1,342	1,264	6.2
	Crossbow	495	440	12.5	380	390	91	91	966	921	4.9
	Vertical Bow	280	265	5.8	233	265	35	41	548	571	-4.0
Richland	Bonus Gun	95	67	41.1	175	113	33	26	303	206	47.3
	Muzzleloader	62	59	5.7	154	139	32	29	248	227	9.1
	Youth	35	47	-25.5	27	34	7	13	69	95	-27.1
	Total	1,507	1,355	11.2	1,631	1,579	367	380	3,505	3,313	5.8

			Bucks		D	oes	Butto	n Bucks	Т	otal Harve	est
County	Season	2017	3-year average	Diff. (%)	2017	3-year average	2017	3-year average	2017	3-year average	Diff. (%)
	Gun	526	489	7.6	587	592	114	117	1,227	1,198	2.4
	Crossbow	440	443	-0.6	256	300	41	50	737	793	-7.0
	Vertical Bow	292	313	-6.6	199	227	25	31	516	570	-9.5
Ross	Bonus Gun	56	54	4.3	102	99	18	16	176	169	4.1
	Muzzleloader	74	90	-17.5	133	150	30	29	237	269	-12.0
	Youth	84	91	-7.4	43	39	11	13	138	143	-3.3
	Total	1,484	1,491	-0.4	1,326	1,418	243	260	3,053	3,169	-3.7
	Gun	102	99	3.0	130	116	41	35	273	250	9.2
	Crossbow	169	154	9.5	139	153	38	37	346	345	0.4
	Vertical Bow	55	64	-14.5	54	63	21	17	130	145	-10.1
Sandusky	Bonus Gun	32	20	62.7	45	34	5	5	82	59	39.0
	Muzzleloader	15	13	15.4	35	34	7	8	57	55	3.6
	Youth	5	9	-46.4	3	6	1	2	9	18	-49.1
	Total	383	365	4.9	408	409	113	106	904	880	2.7
	Gun	300	366	-18.1	474	514	114	100	888	981	-9.4
	Crossbow	347	378	-8.3	224	261	36	37	607	676	-10.3
	Vertical Bow	252	299	-15.8	120	166	20	22	392	488	-19.6
Scioto	Bonus Gun	54	51	6.6	109	92	20	19	183	161	13.4
	Muzzleloader	57	69	-17.8	94	110	17	18	168	197	-14.9
	Youth	36	46	-21.7	23	33	11	11	70	90	-21.9
	Total	1,055	1,219	-13.4	1,053	1,186	218	208	2,326	2,613	-11.0
	Gun	338	325	4.1	422	394	105	108	865	826	4.7
	Crossbow	247	242	2.2	171	177	39	45	457	464	-1.4
	Vertical Bow	92	107	-14.0	111	118	11	19	214	244	-12.2
Seneca	Bonus Gun	59	39	52.6	92	64	24	17	175	120	46.2
	Muzzleloader	28	25	10.5	56	54	14	12	98	92	6.9
	Youth	27	36	-25.7	29	32	11	10	67	79	-15.2
	Total	796	779	2.1	891	848	208	213	1,895	1,841	3.0
	Gun	143	130	9.7	197	191	53	50	393	371	5.8
	Crossbow	120	120	-0.3	113	124	19	30	252	275	-8.3
	Vertical Bow	86	82	4.5	73	83	12	18	171	183	-6.6
Shelby	Bonus Gun	24	16	53.2	42	26	9	10	75	51	47.1
	Muzzleloader	17	15	13.3	32	37	11	12	60	63	-5.3
	Youth	16	25	-36.0	11	16	1	6	28	47	-40.8
	Total	408	392	4.1	469	479	106	127	983	998	-1.5

			Bucks			oes	Butto	n Bucks	Т	average (%) 880 847 3.9 9009 989 2.0 446 503 -11.3 286 188 52.4 166 185 -10.3 53 60 -11.2 9,880 2,806 2.6		
County	Season	2017	3-year average	Diff. (%)	2017	3-year average	2017	3-year average	2017	•		
	Gun	332	293	13.3	431	441	117	113	880	847	3.9	
	Crossbow	474	421	12.7	443	465	92	103	1,009	989	2.0	
	Vertical Bow	177	200	-11.6	234	258	35	44	446	503	-11.3	
Stark	Bonus Gun	74	52	41.4	179	110	33	26	286	188	52.4	
	Muzzleloader	47	50	-6.0	99	112	20	23	166	185	-10.3	
	Youth	26	26	0.0	18	24	9	9	53	60	-11.2	
	Total	1,145	1,057	8.4	1,423	1,427	312	323	2,880	2,806	2.6	
	Gun	56	67	-16.0	82	81	21	19	159	167	-4.6	
	Crossbow	390	385	1.2	413	417	97	111	900	914	-1.5	
	Vertical Bow	119	137	-13.3	162	171	33	36	314	344	-8.6	
Summit	Bonus Gun	20	17	17.6	20	16	1	3	41	36	13.9	
	Muzzleloader	12	10	24.1	20	21	6	3	38	34	11.8	
	Youth	5	5	0.0	1	2	0	0	6	7	-14.3	
	Total	608	625	-2.8	707	713	159	173	1,474	1,511	-2.4	
	Gun	421	386	9.1	610	601	213	190	1,244	1,177	5.7	
	Crossbow	538	519	3.7	487	526	167	161	1,192	1,206	-1.1	
	Vertical Bow	170	183	-6.9	235	257	56	60	461	499	-7.7	
Trumbull	Bonus Gun	87	66	31.8	181	143	53	42	321	251	27.9	
	Muzzleloader	44	40	9.1	126	129	46	37	216	206	4.7	
	Youth	21	29	-26.7	21	27	7	14	49	70	-29.7	
	Total	1,333	1,269	5.1	1,739	1,749	568	526	3,640	3,544	2.7	
	Gun	828	771	7.4	1,252	1,106	251	248	2,331	2,125	9.7	
	Crossbow	718	654	9.8	574	514	94	95	1,386	1,263	9.7	
	Vertical Bow	387	398	-2.8	407	339	52	44	846	781	8.4	
Tuscarawas	Bonus Gun	142	103	37.9	288	193	66	55	496	351	41.4	
	Muzzleloader	95	125	-24.2	258	271	44	44	397	440	-9.8	
	Youth	96	105	-8.6	57	61	28	29	181	195	-7.2	
	Total	2,300	2,183	5.4	2,881	2,524	541	521	5,722	5,228	9.5	
	Gun	136	132	3.0	169	151	45	36	350	319	9.7	
	Crossbow	116	128	-9.4	103	98	19	24	238	249	-4.5	
	Vertical Bow	87	96	-9.7	97	95	15	17	199	209	-4.6	
Union	Bonus Gun	30	16	83.7	26	20	8	5	64	41	54.8	
	Muzzleloader	17	15	15.9	28	25	7	6	52	46	13.9	
	Youth	11	17	-34.0	8	11	4	3	23	30	-23.3	
	Total	403	409	-1.4	436	405	100	91	939	904	3.8	

			Bucks		D	oes	Butto	n Bucks	Т	average (%)  223 224 -0.3  126 113 11.2  61 67 -9.4  49 29 67.0  20 21 -6.2  13 23 -44.3  499 483 3.3  ,226 1,259 -2.6  603 593 1.7  432 435 -0.8  199 175 13.7  254 276 -7.9  67 85 -21.5  ,802 2,843 -1.4  310 288 7.5		
County	Season	2017	3-year average	Diff. (%)	2017	3-year average	2017	3-year average	2017	•		
	Gun	105	103	1.9	96	100	22	20	223	224	-0.3	
	Crossbow	73	62	17.1	44	42	9	9	126	113	11.2	
	Vertical Bow	33	31	5.3	24	32	4	4	61	67	-9.4	
Van Wert	Bonus Gun	25	11	120.6	23	14	1	4	49	29	67.0	
	Muzzleloader	9	8	12.5	8	10	3	3	20	21	-6.2	
	Youth	9	13	-32.5	1	7	3	3	13	23	-44.3	
	Total	258	232	11.2	196	206	45	45	499	483	3.3	
	Gun	468	488	-4.2	636	646	122	125	1,226	1,259	-2.6	
	Crossbow	339	334	1.4	219	217	45	42	603	593	1.7	
	Vertical Bow	236	246	-3.9	165	163	31	27	432	435	-0.8	
Vinton	Bonus Gun	71	57	24.6	115	98	13	20	199	175	13.7	
	Muzzleloader	82	87	-5.4	151	159	21	30	254	276	-7.9	
	Youth	34	52	-34.2	29	26	4	8	67	85	-21.5	
	Total	1,242	1,274	-2.5	1,322	1,316	238	253	2,802	2,843	-1.4	
	Gun	137	117	16.8	137	135	36	36	310	288	7.5	
	Crossbow	235	243	-3.3	188	178	30	33	453	454	-0.3	
	Vertical Bow	115	137	-16.1	114	121	19	21	248	279	-11.1	
Warren	Bonus Gun	17	14	21.4	35	29	14	7	66	51	30.3	
	Muzzleloader	29	25	17.6	46	42	8	7	83	73	13.2	
	Youth	11	16	-31.3	5	8	2	3	18	26	-31.6	
	Total	548	556	-1.5	527	518	111	108	1,186	1,182	0.3	
	Gun	625	645	-3.1	778	808	164	150	1,567	1,602	-2.2	
	Crossbow	389	428	-9.2	266	232	36	33	691	694	-0.4	
	Vertical Bow	220	261	-15.6	161	143	17	16	398	420	-5.2	
Washington	Bonus Gun	67	65	3.1	131	108	15	14	213	188	13.5	
	Muzzleloader	117	104	12.5	195	231	33	34	345	369	-6.5	
	Youth	57	77	-26.0	38	39	5	8	100	124	-19.1	
	Total	1,483	1,591	-6.8	1,572	1,570	272	258	3,327	3,418	-2.7	
	Gun	263	249	5.5	411	386	143	108	817	743	9.9	
	Crossbow	302	294	2.7	258	262	61	56	621	612	1.5	
	Vertical Bow	161	146	10.5	157	171	28	27	346	343	0.9	
Wayne	Bonus Gun	60	43	39.5	104	69	29	19	193	131	47.0	
	Muzzleloader	47	33	42.4	87	88	24	21	158	142	11.0	
	Youth	37	36	1.8	15	23	3	10	55	69	-19.9	
	Total	881	811	8.7	1,050	1,016	295	246	2,226	2,072	7.4	

**APPENDIX 1**COUNTY HARVEST SUMMARIES

			Bucks		D	oes	Butto	n Bucks	Total Harvest			
County	Season	2017	3-year average	Diff. (%)	2017	3-year average	2017	3-year average	2017	3-year average	Diff. (%)	
	Gun	279	292	-4.3	318	340	90	90	687	722	-4.8	
	Crossbow	218	211	3.5	146	184	28	40	392	435	-9.8	
	Vertical Bow	144	145	-0.7	94	137	19	25	257	307	-16.3	
Williams	Bonus Gun	49	37	33.6	65	54	18	12	132	103	27.7	
	Muzzleloader	33	31	6.5	45	47	11	12	89	90	-0.7	
	Youth	18	19	-3.6	3	12	4	4	25	35	-28.6	
	Total	745	738	0.9	681	782	172	187	1,598	1,707	-6.4	
	Gun	156	138	12.8	157	139	28	30	341	307	11.2	
	Crossbow	145	151	-4.2	111	108	26	29	282	288	-2.1	
	Vertical Bow	88	88	0.0	58	60	13	14	159	162	-1.9	
Wood	Bonus Gun	17	17	2.0	30	19	8	5	55	41	34.1	
	Muzzleloader	20	14	42.9	24	20	9	5	53	39	37.1	
	Youth	13	14	-7.1	9	9	3	5	25	28	-9.6	
	Total	444	427	4.0	398	361	89	89	931	876	6.2	
	Gun	280	266	5.3	385	368	89	88	754	722	4.4	
	Crossbow	146	135	8.1	120	121	14	22	280	278	0.8	
	Vertical Bow	112	110	1.8	110	112	20	16	242	238	1.7	
Wyandot	Bonus Gun	33	25	32.0	50	40	18	13	101	78	30.0	
	Muzzleloader	31	32	-3.1	41	53	12	13	84	98	-14.6	
	Youth	27	31	-12.0	15	22	9	8	51	61	-15.9	
	Total	648	617	5.0	743	735	168	167	1,559	1,519	2.6	